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ASSOCIATION CANADIENNE DES PROFESSEURS D'UNIVERSITÉ

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# CAUT lobbies gov't on EPF

**by Richard Bellaire**

The CAUT is continuing to lobby the federal government on the issue of negotiations of the Established Programs Financing Legislation (EPF).

EPF is the federal-provincial program covering transfers for the three social programs of medicare, hospitalization and post-secondary education. The legislation also covers the equalization programs, and the discussion will include the Canada Assistance Plan. Involved are federal transfers of some $19 billion a year (1980-81 figure).

Given its present fiscal position, the federal government is very concerned about the large amounts of money it is transferring to the provinces and the low visibility and credit it receives in return. For this reason, the Minister of Finance called in the October 1980 budget for a $1.5 billion dollar cut in the area of federal transfers to the provinces.

The CAUT began a strong lobby campaign to help protect the universities since it appeared that cuts would largely be centred on the sphere of post-secondary educations. This resulted in the establishment of a parliamentary task force to study the whole question of the federal-provincial fiscal arrangements. The task force is headed by Herb Breau, Liberal M.P. from northern New Brunswick, and has four Liberal members, two Conservative members and one from the NDP.

The CAUT appeared before the committee May 11. The delegation included Jim Foulkes, Ken McGovern, Israel Unger, Donald Savage and Richard Bellaire. The Association spoke to the current underfunding of the university system and the problems this raises in the area of research equipment, libraries, physical plants, support staff and salaries.

The members of the task force were generally supportive of the CAUT position. As Blaine Thacker (PC) put it:

> There is no doubt that my own personal involvement with a small university confirms what Dr. Foulks is saying and also confirms that there is no fat left in the university system.

The members of the task force also expressed interest and some support for the CAUT-AUCC call for a royal commission to study the question of funding before any major changes are made to the system.

NSCUFA, FNBFA, Memorial University and the University of New Brunswick also testified before the committee.

The task force is to report back to Parliament by the end of August.

The Cabinet itself is still far from arriving at a possible solution to the EPF dilemma. According to a senior advisor to the Prime Minister, the questions appear more difficult and the issues more complex than were originally thought, and the simple act of cutting funds is no longer seen as the solution. The federal government is now discussing methods of altering the system of funding universities to give itself more visibility and control by such means as: student aid programs; increased funding for research; support of special program areas such as Canadian studies. But, as of midsummer, the government had still to decide on the details of these new funding mechanisms.

In his testimony before the task force, Secretary of State Francis Fox emphasized the federal role in higher education:

> While the delivery of education is an area of provincial primacy, the federal government has a central role in the national aspects of post-secondary education — those critically important aspects that are not in and for each province.

The Minister went on to list some 12 national objectives ranging from manpower to research. The Minister also stated that the current method of funding post-secondary education was unacceptable to the federal government.

Meanwhile, the CAUT has continued with its lobbying campaign. At the behest of faculty associations and university administrations, a number of city councils have passed resolutions supporting the CAUT-AUCC position and the call for a royal commission. Also local and provincial associations have written to the task force and the cabinet, including the Prime Minister and the Minister of Finance, supporting the CAUT brief to the parliamentary task force.

There is still time for lobbying since details of the new funding arrangement will still need to be developed after the government makes its decision. It will be these details that will affect the individual universities and determine whether they win or lose under the new funding system. Also there will still be lobbying for provincial and local associations at the provincial level.

The provincial ministers of finance met in late June in Victoria to try to reach a common position on EPF to present to the federal government. Their attempt failed largely because of the split between the position of Ontario and that of the energy rich provinces in the west. It now appears that final determination on EPF will await a settlement on the energy pricing discussions between the federal government and Alberta.

Federal Minister of Finance Allan MacEachen has begun a series of meetings with all the provincial finance ministers in preparation for the federal-provincial meetings in the fall.

The situation is still fluid, the decisions are not yet final and the negotiations will be long, difficult and complex. So lengthy, in fact, will be the negotiations that there is talk that the current EPF legislation will be extended beyond March 30 for perhaps a year to allow more time to come up with a replacement.

The CAUT will continue to monitor the situation, lobby governments at both levels, keep local and provincial associations informed, and make sure that any new system of funding is to the advantage of the university system as a whole as well as to its individual members.

*Richard Bellaire is a professional officer with the CAUT.*

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*Commentary*

# My modest proposal for the perfect university

**by F.K. Donnelly**

Now that the federal government is reviewing the system of finance in post-secondary education, this may be an opportune time to reconsider our concept of the university.

We should be prepared to man the ramparts in the defence of those aspects of the university which are absolutely essential to its purpose and to jettison those that are not. My thoughts on this subject have not emerged by way of any great flash of insight. Rather the process of enlightenment has been a slow one which meets all the criteria of scientific objectivity.

The first aspect of the Canadian university that we might re-examine is the grounds. Are the tree-lined avenues, patches of green, ornamental gardens and odd bits of semi-aesthetic sculpture really necessary?

Does the progress of Western civilization really rest upon the absence of any acoustic qualities at Carleton's imitation Greek amphitheatre or the life span of McGill's gingko tree? No! Let's scrap it all and sell the real estate. The profits realized from the sale of the downtown grounds of some of our universities could carry us through the forthcoming financial crisis.

In addition, no grounds means no groundskeepers and further huge savings. The old Sir George Williams campus in Montreal didn't have any grounds and yet it was more than able to carry on with its educational obligations.

Let's go further and get rid of the buildings and the fixed campus site as well. No buildings means no maintenance staff, no multi-storey parking facilities, no time-consuming drives to work and no faculty club.

The University of Alberta could fire its little army of parking lot attendants, demolish their H.Q. bunker and disconnect their computer monitoring device. Think of the energy savings involved in not having any buildings.

Perhaps a massive federal government converson grant might be obtained for a 100% reduction in energy consumption. University libraries and librarians could be dispensed with as well. Existing collections could be donated to the National Library in Ottawa and borrowed back by scholars on the inter-libary loan service.

I would also get rid of photocopy machines, laboratories, secretaries and computers. Any scholar in need of such things would have to contract them on a personal basis.

Convocation, that is the time when we dress up and try to find a faculty member who can still recite in Latin, is really just an expensive public relations gimmick that we could well do without.

Oh yes, I almost forgot, we could also solve the student unemployment problem by dropping the 80 out of 100 undergraduates who are not capable of gaining the full benefit of a university education. This in turn would eliminate the need for expensive residence facilities and their associated staffs.

All of these costly yet non-essential things would have to go. I would keep only one thing at the perfect university — scholars. They would simply receive a portion of the university budget to carry out their research and to supervise a few students.

There would be one common salary, say $50,000, along with a generous no-questions-asked expense allowance, and no academic ranks. This would eliminate all that useless, time-wasting committee work drivel about such matters, as well as inter-faculty jealousy over salaries and promotions.

There would also be no payroll deduction schemes, no faculty association, no collective agreement, no committees, and absolutely no need for an ever increasing plague of administrators. This would also obviate the need for faculty members to interminably complain to each other about their problems with the administration.

There would be no administration and these Jobian litanies could be converted into a symphony of intellectual endeavours.

This proposal has much in it that would be attractive to both politicians and taxpayers. In spite of the flashy salaries, it would be a cheaper institution to operate than a conventional university. It would also provide the opportunity for academics and a small number of students to engage in useful intellectual activities. Every true scholar should be enthusiastic about this scheme.

There is only one possible flaw in this proposal which might prevent its universal implementation. It may be that once the bureaucratic, financial, ceremonial and environmental problems of the universities are solved, some faculty members would find that they did not know how to spend their time.

This would be very serious indeed, but I suggest that it is only the remotest of possibilities.

*Professor Donnelly is with the Division of Humanities and Languages of the University of New Brunswick.*


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# UBC's Jim Foulks new CAUT President

Professor Jim Foulks is the new President of the Canadian Association of University Teachers. The CAUT elected Professor Foulks as President at its annual council meeting held in Ottawa May 6-8.

Professor Foulks is with the Faculty of Medicine of the University of British Columbia and has an M.D. from Columbia and a Ph.D. from Johns Hopkins University. He was for many years Chairman of the Department of Pharmacology of the University of British Columbia and has been President of the Faculty Association at UBC and Chairman of the Academic Freedom and Tenure Committee of the CAUT.

Professor Philip Welch of the Faculty of Medicine at Dalhousie University is the Association's new Vice-President External. Dr. Welch is a graduate in Medicine of the University of Edinburgh and holds a Ph.D. from Johns Hopkins University. He is also Director of the Cytogenetics Laboratory at the Izaak Walton Killam Hospital for Children in Halifax and a consultant in medical genetics to a number of Nova Scotia hospitals. He is a former President of the Dalhousie Faculty Association.

Professor Ken McGovern of Campion College of the University of Regina was reelected Vice-President Internal. He is a graduate of the University of Windsor and holds a Ph.D. in philosophy from the University of Ottawa. He has been Chairman of the Faculty Association of the University of Regina and chief negotiator for the faculty collective agreement.

Professor Louise Forsyth continues in the second year of her term as Treasurer of the CAUT. Professor Forsyth is Chairman of the French Department at the University of Western Ontario.

The CAUT has 26,000 faculty and professional librarians as members in all provinces.

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# Recent tariff a blow to universities

**by Dennis Tuck**

A federal tariff on imported chemicals imposed July 1 will hit Canadian universities with millions of dollars in extra administrative and material costs.

One financial benefit which Canadian universities have received from the Federal Government, and about which few of us knew until its threatened withdrawal in 1977, involved the privilege of importing supplies and apparatus free of tariff and of federal sales tax. In essence, Tariff Item 69605-1 permitted the duty-free import of supplies intended for teaching or research in universities and similar institutions.

An attempt to change these arrangements was proposed in 1976 but fortunately did not come to pass, partly because a letter-writing campaign to MP's helped towards the withdrawal of the proposed Order-in-Council. Those involved felt very proud of having achieved such a powerful political coup, but this delusion was shattered when the whole matter of tariff remission for universities surfaced again in 1979.

By this time a number of national bodies were alert to the matter, and amongst others AUCC, CAUT, and Canadian Association of University Business Officers prepared briefs arguing against the sweeping changes then proposed, but all unfortunately to no avail.

### Chemicals subject to duty

As of July 1, 1981, all imported chemicals are subject to duty, apart from certain specific relaxations. The actual duty varies with the item concerned, and the government obviously believes that it is making a great concession by allowing that a single rate of 15% be imposed when a large number of items are imported at one time. The effect of the new regulations is presumably to force universities to buy standard chemicals from Canadian manufacturers, and the proposals have obviously received strong support from the Canadian manufacturers of laboratory chemicals.

'Manufacturing' in this sense is a fairly general term, covering anything involved in bringing materials to the user in such a way as to incorporate some Canadian content; it may therefore cover repackaging or purifying bulk material, quality control, labelling, bottling, and the provision of catalogues. Raw materials are often imported and any tax at this stage is paid by the manufacturer.

Those who are committed to strengthening the Canadian chemical industry can only support any efforts toward expansion; the role of tariff protection is clear, and there is a genuine belief on the part of Canadian chemical manufacturers that they will secure an increased fraction of the market. Members of CCUCC had the pleasure of hearing Mr. John White, President of BDH Chemicals Ltd. speak to this subject with great feeling at our Annual Meeting in June 1980, and I believe he convinced many of those present that there is a case to be supported.

### Specialty chemicals a concern

Our main reservation, now held the more firmly in the light of what has happened, concerns the many specialty chemicals which are not manufactured in Canada (and given the size of the market, it is unlikely that they will ever be produced here). Almost every researcher needs quantities of substances which are perhaps available from only one foreign producer. To impose a tariff on the import of such an item seems ludicrous, given that this will afford no protection to any Canadian manufacturer.

| Group | Net annual value of Canadian consumption (in millions of $) | Estimated % consumed by universities |
|---|---|---|
| Common Reagents, Acids, Solvents Organics | 25.0 | 20 - 25% |
| Biochemicals | 5.0 | majority |
| Special Reagents | 2.5 | 50% |
| Diagnostics | 8.0 | low |

For a while I was under the impression that we had a saving clause which would help us with such special materials, since in a letter (May 1980) the Department of Finance stated that "consideration is being given to the possibility of providing duty-free entry for chemicals imported for use by schools, universities and colleges and which are not available from Canadian production. A preliminary list of these chemicals is now being prepared."

It is now clear that the list includes those chemicals which are used in large quantities and which are not available from Canadian production (large quantities in this context means at least $10,000 per annum spent on the single chemical in question). This does nothing to help in the vital matter of special research chemicals.

At an early stage, it was proposed that a list of chemicals manufactured in Canada should be established (and I believe that this could be easily done) so that all other chemicals could be imported free of tariff. In addition, CCUCC has constantly made the point that there must be some guarantee not only in terms of quantity, but also of quality; many chemicals are available in different grades, and it is no satisfaction to the researcher who needs very pure material to be told that the only available domestic material is of another grade.

### Arguments rejected

All these arguments are rejected by the Ministry of Finance on the grounds that Customs Officers are not trained chemists, and cannot therefore make decisions which require expert knowledge. To what extent one can blame the Ministry for not foreseeing such difficulties when they drew up the new regulations, or for ignoring them when eventually identified, is a matter of personal opinion.

Given the failure of our attempts to change the minds of Department of Finance officials, all imported chemicals have been subjected to a duty of at least 15% as of July 1. What does this mean in terms of the actual costs? I am grateful to Mr. John White of BDH for allowing me to quote the above estimates.

Of these groups, we must be most concerned about the organic and inorganic reagents only available by importation. If one assumes with Mr. White that more than 50% of this sum is spent by universities, then a 15% tax will raise something of the order of $250,000, which is of course a trivial amount of money as far as the government is concerned.

The tragedy is that it means a withdrawal of funds from the universities, and one which we can ill-afford. To put it in other terms, it represents the loss of 15 postdoctoral positions, at $15,000 per annum, or 30 graduate studentships at $8,500 per annum.

All of this, of course, comes at a time when the government accepts the need to train the scientific manpower which Canada will need for the rest of this century. The position of the Ministry of Finance is that "the administrative costs involved in applying a non-availability test to chemicals and chemical preparations as a pre-requisite for duty-free entry would considerably outweigh the duty saving to end users." I hope somebody in the government will now explain this particular equation when presented in terms of its effect upon the training of future Canadian scientists.

As a purely personal position, and I should be heart-broken if I misrepresent the Ministry of Finance in any way, I conclude that a well-meaning attempt to support Canadien manufacturers will result in a substantial blow to those in Canadian universities who use imported research chemicals. The Ministry of Finance has simply thrown up its collective hands and agreed to let the universities suffer. They hold to a belief, which I find irritatingly naive, that extra funds will be provided to overcome this particular problem. In practice, the universities will suffer because of the uncomprehending and unsympathetic attitude of government officials. In passing one can only wonder what happened to such people in their formative years that they so despise the universities' efforts.

### Renge of items threatened

I have concentrated my attention on the cost of chemicals because that is something which I think I understand. I have said nothing about the extra work which each university will face as these new regulations bite across the whole range of imported items. One estimate puts the extra administrative costs at three million dollars per annum, and, while I have no way of justifying that figure, it certainly measures the alarm with which CAUBO reacts to these new regulations.

Another estimate from CAUT is that the total extra cost to Canadian universities of all the proposed tariff item changes will be five million dollars. As a chemist, I feel strongly about the effect of all of these things on our research and teaching, but I think that all Canadian academics should be concerned about this latest round of government insensitivity.

*Professor Tuck is Head of the Department of Chemistry at the University of Windsor.*


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# Up, up and away for NSERC

by Robert Willes

The Natural Sciences and Engineering Research Council will receive $201.5 million for the 1981-82 fiscal year.

John Roberts, Minister of State for Science and Technology, made the announcement July 9.

This is an annual increase of 23.9 per cent over the level of funding in 1980-81 and a further $20 million in addition to the $18.9 million, or 11.6 per cent increase, which was already announced in the federal government's Main Estimates of February this year.

These additional funds will be most encouraging to the Canadian university research community. Is R&D in Canada finally beginning to move forward after years of neglect? Let's hope so!

Mr. Roberts' announcement should be most encouraging to those researchers who diligently wrote letters, letters, and more letters to the various members of the Cabinet Economic Development Committee indicating the displeasure of the research community with the inadequate level of NSERC funding as projected in the government's Main Estimates.

Best sources also indicate that Mr. Roberts, with the able assistance of Mr. McNabb, President of NSERC, and his staff, argued forcefully and persistently in Cabinet committee to convince the government to award the healthy 23.9 per cent increase in funding. Once again we see "democracy in action"..."the squeaky wheel is the one that bothers the mule skinner" or something like that!

bish university research equipment. This decision is in keeping with the recommendations of the Task Force on University Equipment which reported to the NSERC in May 1981.

The balance of the $20 million will be distributed between strategic or targeted research, free research and NSERC administration.

The comparisons shown in Table I indicate that the 1981-82 budget for the NSERC is close to that projected in Alternative III of the Five-Year Plan as developed in 1979.

The areas showing the greatest deviation from the plan are manpower, at 76.5 per cent of the projected level, targeted research, at 90.2 per cent of the projected level and administration, at 73.9 per cent of the projected level.

The funds forecast by the NSERC for university equipment are actually 107.3 per cent of the projected level in the plan.

These indications are indeed encouraging although it could be argued that the Alternative III plan is not adequate, in which case the funding forecasts for the various NSERC programmes are considerably below the projected levels for Alternatives I or II of the NSERC Five-Year Plan.

How do things look as far as future support for the NSERC? Best sources indicate that the response from the research community, which severely criticized the level of support for the NSERC proposed in the government's Main Estimates, had a major impact on assisting those arguing in the government for increased NSERC support.

Forecast Expenditures* for NSERC (1981-82) compared with the expenditures proposed in the NSERC Five-Year Plan.

TABLE I

| PROGRAMME | 1981 MAIN ESTIMATES | EXPENDITURES* FORECAST IN 1981 SUPP. | 1981 TOTAL | NSERC PLAN ALTERNATIVE III ESTIMATES* | TOTAL/ ALTERNATIVE III (%) |
|---|---|---|---|---|---|
| MANPOWER | 30.0 | 0 | 30.0 | 39.2 | 76.5 |
| EQUIPMENT | 19.5 | 15.3 | 34.8 | 32.4 | 107.3 |
| TARGETED RESEARCH | 20.0 | 2.5 | 22.5 | 24.9 | 90.2 |
| FREE RESEARCH | 94.6 | 1.3 | 95.9 | 96.1 | 99.8 |
| GENERAL PROGRAMMES | 13.0 | 0.7 | 13.7 | 13.6 | 100.9 |
| ADMINISTRATION | 4.3 | 0.2 | 4.5 | 6.1 | 73.9 |

*MILLIONS OF 1981 DOLLARS.

How does NSERC plan on spending their new found bonanza? The 11.6 per cent increase in funding, as announced in the Main Estimates last February, was far short of the funding required to keep NSERC on track with respect to Alternative III of their Five-Year Plan. Consequently, cuts appeared unavoidable in certain programmes proposed in the plan. The NSERC administration decided to make most of the cuts in the support of research equipment grants (Reference Table I), since these programs could be most easily re-activated by a hoped-for supplementary increase in funding.

As would be predicted from this scenario, most of the new-found funds ($15.3 million, see Table I) will go to refurbish university research equipment. This decision is in keeping with the recommendations of the Task Force on University Equipment which reported to the NSERC in May 1981.

*Robert Willes is Chief Science Policy Advisor for the Canadian Federation of Biological Societies.*

It is doubtful if the response of the politicians to such a lobby effect would be nearly as great next year. This scenario suggests that it is very important that the increase in funding proposed in the Main Estimates to be tabled early in 1982 be much more in line with the NSERC Five-Year Plan than was the case in 1981.

To achieve this objective, it is necessary that the Treasury Board, which develops the Main Estimates, be persuaded that the level of funding projected in the NSERC Five-Year Plan is essential for the government to achieve its stated objectives regarding the growth of university research.

In other words, Canadian researchers have to let the Treasury Board know what is required before the Main Estimates are etched in stone; meaning by September or October, 1981. Let us hope that these efforts from the research community will be forthcoming and that they will be successful.


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# Ontario opens pension-plan battle

by Leonard Shifrin

It wasn't due for another couple of months, at least, but the pension plan war has evidently begun. Ontario Treasurer Frank Miller fired the first volley — and shot himself in the foot.

Miller's ideological tirade was aimed at federal Welfare Minister Monique Bégin, whom he accused of wanting to "nationalize" our pension system by expanding the Canada Pension Plan (CPP).

What's more, he warned his Chamber of Commerce audience "She is not alone." The Canadian Labor Congress is also in this "expansionist" camp.

So is the all-party Senate committee that made the same recommendation last year, but Miller didn't mention that. Presumably, the notion of unionists and senators as bedmates in villainy would only have confused matters.

Why is it these groups want to see the CPP expanded? The Ontario treasurer enumerated their reasons:

"First, it is a plan that ensures complete coverage.

"Secondly, benefits are vested immediately and become fully portable.

"Thirdly, the value of all benefits earned is updated automatically to reflect growth in earnings up to the time of retirement.

"And finally, once benefits begin to be paid they are indexed to the cost of living."

What an infamous collection of reasons! All those businessmen at the Burlington Golf and Country Club must have been choking on their after-dinner brandies.

Broadening the CPP will "restrict the individualism," Miller warned.

"Only the flexibility of the private sector can meet individual needs and desires. A universal program simply can't do the trick."

All it can do, in Miller's words, is provide complete coverage, immediate vesting, full portability and indexing. Since private pensions do none of these things, meeting "individual needs and desires" is evidently something else entirely. Unfortunately, he didn't indicate what.

Instead, the Ontario treasurer presented a critique of Monique Bégin's speech at last month's National Pension Conference. Declaring that the government of Ontario "has a leading role to play" in pension reform, Miller proposed "to remind Madame Bégin that jurisdiction of pensions is primarily a provincial matter."

That isn't what the British North America Act says. It sets out that "The Parliament of Canada may make laws in relation to old age pensions and supplementary benefits... but no such law shall affect the operation of any law... of a provincial legislature."

The section creates an exception to the general rule that federal legislation supersedes provincial legislation. But it doesn't say that provincial law pre-empts federal.

The last great pension crisis, almost 20 years ago, is remembered for the 11th-hour compromise between Prime Minister Lester Pearson and Quebec Premier Jean Lesage that produced the Canada/Quebec Pension Plan.

Because the dramatic agreement was seen as having "saved Confederation", it was politically impossible for the Ontario government to refuse to go along. But, until then, it had been resisting any sort of public plan, insisting that private sector schemes were enough.

In a recent speech to the Canadian Centre for Policy Alternatives' pension conference, George Ford, head of the Saskatchewan government's pension branch, offered a variety of speculations (in his personal, rather than official capacity) on possible results of the coming round of federal-provincial negotiations.

On the one hand, there could be a return of 20 years ago, he said, with the federal government and Quebec reaching agreement on an expanded C/QPP, and public opinion pushing Ontario to go along.

Alternatively, a complex balkanization could ensue, with Quebec expanding its QPP, Ontario relying on private pensions, and one or more provinces establishing provincial versions of the CPP to supplement the national plan.

Ford's most intriguing scenario involved Ontario using its veto to block an expansion of the CPP favored by the other provinces. In that event, he suggested, the federal government could create a second-tier version of the CPP as a purely federal program, subject to no provincial vetoes.

Ontario might be free to opt out. But if it did, my political antennae tell me that would be the end of the Big Blue Tory Dynasty.

*Reprinted from the Ottawa Citizen.*

# FOI laws in Canada: the provincial picture

**by Roland Gaudet**

Canada is about to become the first Commonwealth country to have a Freedom of Information Act.

At the same time as our federal government nears this distinction, progress in the same direction is being made in the provincial jurisdictions.

**The Maritimes**

The Maritime provinces are the most advanced. Nova Scotia enacted an information bill as far back as 1977, becoming in effect the first jurisdiction in any Commonwealth country to do so. However, the Act was only a timid pioneering effort and a new bill was introduced in March, 1981, to replace the earlier attempt at opening government in Nova Scotia. While the first try largely entrenched the status quo, leaving with the government all discretion to disclose or not, the 1981 approach provided for independant judicial review of government decisions to withhold information.

This approach, already entrenched in the U.S. FOIA and the Canadian government's Access to Information Act, was the one adopted by the New Brunswick government, whose Right to Information Bill, came into force on January 1st, 1980. Because of this approach, the New Brunswick legislation has given Canada its first, and so far only test-cases dealing with openness in government.

After 15 months, the New Brunswick bill had only been used sparingly... less than 30 formal requests. However the results, which critics had predicted would be nil because the bill was drafted too widely in favor of secrecy, have been outstanding. More information has been ordered released by the New Brunswick courts than anyone, including the provincial government, had ever expected.

For example, the courts ordered the release of a 1977 study conducted for the New Brunswick Electric Power Commission on the Construction of the Commission's Point Lepreau nuclear power plant in southern New Brunswick. The report, according to a June 1980 Canadian Press release "reported desperately low worker productivity at the site... Members of craft unions at Lepreau labored an average of only 26.5 per cent of the time, or only about two hours a day... The study cited the major reasons for low worker productivity at Lepreau — late starts and quitting early, travel and waiting on site, union influence, ineffective supervision and lack of good scheduling.... Each day the men stayed off the job meant a loss of $500,000 to the province in administration and interest charges."

The report was made public following a court battle under the Right to Information Act by Opposition Liberals in New Brunswick.

Another case was successfully concluded by Liberal Finance Critic John McKay who had been denied access to the quarterly financial reports prepared for the provincial treasury board, which are traditionally secret. McKay appealed to the Court of Queen's Bench in March 81 under the Right to Information Act. The government's position was that the documents were legitimately secret because they contained "recommendations or opinions" of civil servants to the minister. Justice Dickson, who heard the case said that the reports were more like a factual analysis of the fiscal status of the province, and ordered their release.

There have also been a number of requests from New Brunswick citizens on such matters as the budworm spraying program, personal medical records, safety of buildings and minutes of government committee meetings.

While the number of requests has been low, all have either been granted voluntarily or the courts have ordered the release of the disputed information.

Meanwhile, Newfoundland has introduced a similar bill, which incorporates independant judicial review. This bill is at second reading stage, and is scheduled to come into force on January 1st, 1982.

**Ontario and Quebec**

Elsewhere, definite progress can be reported in Ontario and Quebec. In 1980 in Ontario, the Williams Commission on Freedom of Information and Individual Privacy ended its three-year study and submitted its report to the Ontario government. The Commission had held public hearings across the province; it had received more than 100 briefs; it had published 17 major research papers; and it made 141 specific recommendations for access to information and protection of privacy laws, as well as the administration of those laws. Speaking in Toronto in September 1980, Minister Allan Pope, then responsible for freedom of information, said: "I find those principles totally acceptable and hope to introduce legislation based on them at this fall's session of the legislature.

The fall session failed to produce the promised legislation. But Pope did produce a draft bill, which was to have been introduced in the spring session of 1981. However, a few short weeks before that promise could materialize, Premier Davis promoted Allan Pope to the head of the Ministry of Natural Resources, and decided that Pope would be too busy to continue with freedom of information. Instead, the Premier named a new minister without portfolio, Norm Sterling — unfamiliar with the issue — to carry on with freedom of information. This inevitably meant a delay in bringing in legislation.

In the April throne speech the government promised to bring in a discussion paper rather than legislation. The seemingly perpetual procrastination by the Ontario government could possibly be explained by the heavy opposition which has been coming in from several departments at Queen's Park, as well as from the Association of Chiefs of Police headed by Chief Ackroyd of Toronto.

In Quebec, the provincial government has just received a copy of the "Paré" Commission report on freedom of information. The commission was created by ex-communications minister Denis Vaugeois late in 1980 and is headed by Jean Paré, editor of *"L'Actualite"*. The government promised during the recent election that a bill would be introduced after receipt of the Paré report. The legislation is to be drafted under the guidance of Communications Minister Jean-FranÇois Bertrand, and is expected in the fall of 1981.

**The West**

Progress is slower in the western provinces. British Columbia was actively interested in freedom of information in 1978 and 1979, largely because of pressure and help from the B.C. Branch of the Canadian Bar Association. The issue was extensively studied by the Attorney-General's department which assembled a thorough collection of files and information on the subject matter. Then the issue was dropped late in 1979 because the government had "other pressing concerns". Meanwhile, the opposition New Democrats have been occasionally pushing for freedom of information legislation. They made it a promise at election time, and NDP MLA Eileen Dailly introduced a private member's bill in May 1980.

In Alberta, for at least five years now, at every session of the Alberta Legislature, both NDP Leader Grant Notley and Socred MLA Walter Buck have introduced freedom of information bills. The bills get debated and then rejected by the Conservative government's overwhelming majority.

In Saskatchewan the government professes support for freedom of information, but has yet to produce any legislation. In 1980, the NDP government rejected a private member's bill introduced by Conservative MLA Bob Andrew. Attorney-General Roy Romanow did however indicate the Saskatchewan government's support for freedom of information generally, saying that "it is our hope that within the next 12 to 18 months, perhaps 24 months, a proposal will be before this legislature in the form of a white paper." The 18-month deadline has passed. The 18-month deadline will be up next October, and the 24 month deadline is up in May of 1982.

In Manitoba, Premier Sterling Lyon is known to oppose any legislation in this area. Prior to being elected federally, Lloyd Axworthy, then lone Liberal MLA in Manitoba introduced freedom of information private member's bills several years in a row. Both under the NDP and the Conservative governments in that province, his information bills were overwhelmingly defeated.

It is expected that the federal government's Access to Information Act, expected to be passed this summer, will speed up the provincial government's action on similar legislation. As well, the New Brunswick opposition's unqualified success with the information bill in that province is starting to be seen with envy by other opposition Parties in other provinces, who will undoubtedly mount more pressure for similar laws.

*Mr. Gaudet is a CBC broadcaster and a member of ACCESS, a long-established lobby for FOI in Canada.*


**THE BOARD OF GOVERNORS OF THE UNIVERSITY OF SASKATCHEWAN**

Invites nominations and applications for the position of

**VICE-PRESIDENT (ACADEMIC)**

The appointment, which will be effective July 1, 1982, is normally for an initial term of five years and may be renewed by mutual agreement.

The Vice-President (Academic) is responsible to the President for the development of the academic policies of the University and, in consultation with the Deans, for the general administration of the academic programs. Applicants should have an established reputation as an academic scholar, teacher, and researcher, and demonstrated experience in university administration.

The University of Saskatchewan is a publicly funded institution established in 1907. The full-time student enrolment in the 1980-81 academic term was about 10,000. The University offers a full range of curricula both academic and professional with students registered in fourteen colleges and three schools.

Applications should be accompanied by a detailed curriculum vitae and the names of at least three referees. Letters of nomination should be submitted to be received by the Secretary not later than November 15, 1981 at the following address:

Mr. N.K. Crem
University Secretery
University of Seskatchewan
Saskatoon, Seskatchewan
S7N 0W0

# University of Guelph

## DEAN

## COLLEGE OF BIOLOGICAL SCIENCE

Nominations and applications are sought for the position of Dean of Biological Science which will become vacant on 1 July 1982.

The College of Biological Science consists of the Departments of Botany and Genetics, Microbiology, Nutrition, and Zoology, and the School of Human Biology and has approximately 90 faculty members.

Approximately 2,000 students are enrolled in the undergraduate programs in the College, with 150 graduate students in Masters and Ph.D. programs. Research projects in the College cover a wide spectrum and attract considerable external funding.

Strong academic leadership qualities and distinguished scholarly reputation, together with previous teaching and administrative experience are requirements for the position.

Applications and nominations should be sent by October 31, 1981 to:

Dr. H.C. Clark
Vice President Academic
University of Guelph
Guelph, Ontario, Canada
N1G 2W1

# Wilfrid Laurier University

## PRESIDENT

Applications and nominations are invited for the position of President with appointment to be effective August 1, 1982. The term is normally for five years and may be renewed by mutual agreement.

The University is made up of the following five divisions: Faculty of Arts and Science, Faculty of Music, School of Business and Economics, Faculty of Graduate Work, Faculty of Social Work. The University has over 200 full-time faculty members and in excess of 3,500 full-time students.

Applicants should have established academic qualifications and administrative experience in an established university or research organization. They should have acknowledged leadership skills and the ability to relate to both the academic and general community.

Applicants should submit a complete resume and the names of three referees by October 31, 1981 to:

Chairman, Presidential Search Committee
Wilfrid Laurier University
Waterloo, Ontario
N2L 3C5


# FOI faces tough sledding around the world

*Following is an update on Freedom of Information legislation around the world, written by Tom Riley, former aide to FOI advocate Gerald Baldwin and now executive secretary of the International Freedom of Information Commission, based in London, England.*

### Great Britain

The British House of Commons defeated the attempt of supporters of the Private Member's Bill on FOI, introduced by Labour MP Frank Hooley, to send it to second reading, by bringing out the payroll vote. The bill is not expected to get back onto the order paper this session.

### Australia

Meanwhile, in Australia the government has yet to reintroduce its Freedom of Information Bill which had been brought forward in 1978 and subsequently referred to the Senate Committee on Constitutional and Legal Affairs.

Part of the delay in reintroducing the bill is the wide opposition to it as it currently stands.

The Senate Committee, in a report released in late 1979, had recommended 98 changes to the government bill. However, the report was then referred to a senior committee of civil servants. This resulted in the government saying, in September 1980 in response to the Senate Report, that it would accept only 30 to 35 of the proposed changes.

Senators from both the government and opposition side reacted strongly to this announcement by the attorney-general and put themselves on record as saying they would fight any attempts by the government to push through a weak bill. The Senate leader of the opposition, Gareth Evans, Labour, said the government bill was only a cosmetic attempt at open government.

The matter died with the calling of the October election. The Government was re-elected, but the Bill has not been reintroduced.

However, Senator Don Chipps, leader of the minority Democrats who now hold the balance of power in the Senate has said his first priority will be the Freedom of Information Bill. As there is also support from dissident Liberals in the Senate it is expected the bill will be forced back with substantial amendments.

### New Zealand

In New Zealand the Danks Committee on Government Information (named in 1978) has released its Report. Observers had initially thought the report would be a government whitewash as five of the committee members were from senior posts in the civil service. However, the committee recommended an Access to Information law. Strangely enough, the government is proceeding with an information policy by first implementing it in the Justice department rather than all departments. An additional controversy in New Zealand is the lack of a recommendation for judicial review.

The Opposition Labour Party in New Zealand has said that if it is elected this Fall the party will immediately introduce a Freedom of Information Bill with a final review to the ombudsman. This has garnered a lot of criticism from information advocates who say the courts can be the only final appeal. Others argue the Labour position is a good one. The ombudsman is an effective office in New Zealand and has always been a strong upholder of people's rights. At the moment the argument is still academic until Prime Minister Muldoon actually announces the introduction of a bill.

### United States

On other fronts, incursions into the American FOI Act are expected this year, with the election of President Reagan, the new Republican majority in the Senate and the resultant chairmanships of the powerful Senate committees going to the Republicans. The first battle will be over the CIA and FBI attempts to be totally exempted from the Act. There are various ways this can be achieved, one of which is through the CIA gaining the right under the Budget Review Act to have the director claim an exemption. This would mean little public attention on the matter as the Act is dealt with in secret. It would also mean the by-passing of the current oversight committees. The crucial test will be whether or not they are totally exempt from review in the courts.

The FBI might try for exclusion through their new charter which is to come before Congress again this year. Advocates on the scene in Washington say the CIA and FBI are the two areas which the Republicans might concentrate on. Any other attempts to weaken the act could be met with stiff opposition because so many diverse interest groups use the FOI Act. Some observers remark that even the FBI and CIA exemption attempts will not be easy. They predict the Republicans are going to move slowly on this one.

### Europe

In West Germany the coalition partner of the ruling Social Democrats, the Liberals, tried to negotiate introducing a Freedom of Information Bill as part of their coalition agreement but were turned down. However, the Social Democrats nonetheless are taking the issue more seriously. There reportedly have been think tank sessions on the issue at a conference near Bonn last November.

In Denmark the Open Files Act is slated to be amended this year. An Administrative Procedures Act, being introduced in this session of Parliament, will give individuals and groups involved in judicial proceedings with the Government wider access to sensitive documents and allow correction of false and misleading reports.

The Council of Europe is to report on the unanimous decision of the Parliamentary Assembly in 1979, calling for laws in all major countries. The council's recommendations should result in an increase in the number of countries with such laws.

The exception is expected to be Great Britain who has as yet to sign the convention on privacy put forth by the Council of Europe and signed by 21 member countries.

Great Britain is expected to sign the convention by the end of 1981 and bring in a proposed Privacy Bill by mid-1982. Nonetheless, Britain is still the furthest behind the majority of European and Scandinavian countries in both freedom of information and privacy.

Canada, moving toward an effective law, is considered to be the leader in the Commonwealth in both FOI and privacy.

*Reprinted from the Canadian Daily Newspaper Publishers Association Newsletter.*

# NATIONAL NOTES

by Jill Greenwell (Relations with Government Officer)

**Research budgets encouraging**

Scientists in the natural sciences and engineering breathed a sigh of relief in early July when the government announced that the Natural Sciences and Engineering Research Council would receive a 23.8 per cent increase or a total of $201.5 million for its 1981-82 budget. The university research community, as well as council officials, had lobbied hard when the Main Estimates, published earlier this year, revealed that, despite the government's promise to boost R&D expenditures, NSERC would only receive a 11.5 per cent increase over its 1980-81 budget of $162.65 million. There were real fears that the council would have to cut back some of its programmes, including its new manpower training programmes. Although the $20.5 million is still $2 million short in real terms of the objective for the second year of its five year plan (the plan outlined three funding levels, and the government chose the cheapest option), this year's shortfall is smaller than last years which was more than $6 million short of the plan in real terms.

Monique Bégin, Minister of Health and Welfare, announced in March 1981, that the Medical Research Council budget for 1981-82 would be $100.2 million — an increase of 22.3 per cent over the 1980-81 budget. At the time of going to press, no announcement about the 1981-82 budget for the Social Sciences and Humanities Research Council had been made. According to the Main Estimates, the Council is scheduled to receive only a 9.3 per cent increase or a total of $45.6 million.

**A growing influence**

Since its first and highly successful mass lobby of parliamentarians, organized by the CAUT and the Canadian Federation of Biological Societies in early 1976, the Consortium of National Scientific and Educational Societies has now grown to some 27 organizations representing almost all research disciplines, a number of professional employee groups, the Association of Universities and Colleges of Canada, and the National Union of Students. The group was established in order to exchange information on its members' lobbying interests and to discuss strategies. It has been agreed that consortium members would coordinate lobbying activities in areas of mutual interest and agreement, but this would not preclude a member from participating on matters which are outside their mandate or on which they hold differing views. Although the consortium's main concerns continue to be the funding of post-secondary education and of research, it also lobbies the federal government on other issues affecting the university community.

**Health research budget increased**

As a resuli of a lobby spearheaded by the Canadian Federation of Biological Societies and the Canadians for Health Research (both Consortium members), the Minister of Health and Welfare, Monique Bégin, recently announced that the 1981-82 budget of the National Health Research and Development Programme will be increased by $1 million to a total of $11.2 million. Further $1 million increases have also been approved for 1982-83 and 1983-84. The NHRDP supports research in the general area of health care delivery such as vaccine and patient treatment programmes, mental health care and the care of the elderly and disadvantaged, child-care and nursing care. The NHRDP had originally been scheduled to receive a mere 1.9 per cent for 1981-82 — or a total of $10 million.

**A CAUT priority**

The CAUT Board has designated funding for research in the social sciences and humanities as a major priority during the coming year. The CAUT hopes, in collaboration with the Social Sciences Federation of Canada, and the Canadian Federation for the Humanities to organize a mass lobby of parliamentarians in early December, to be followed by a series of lobbying events in conjunction with the 1982 CAUT Council meeting and the Learned Societies meetings which are scheduled to be held in Ottawa next year.

**SIN concern survives**

In her report to the government earlier this year, Inger Hansen, Canada's Privacy Commissioner, found that although the use of social insurance numbers was widespread, restricting its collection would not cure the problem of protecting personal privacy. The real issue is the growing danger of data linkages, particularly secret or inappropriate data linkages. After an extensive analysis of just how widespread the use of the SIN is, Ms. Hansen has issued four basic recommendations: (1) unauthorized disclosure of personal data which has been collected in exchange for services, benefits, or by law, would be an offence under the Criminal Code; (2) the federal government should implement contingency plans for the protection of personal data during periods of man-made or natural disasters; (3) individuals who object to the use of the number would be able to opt out; (4) the federal government should inform people of their rights to information privacy, and the need for individuals to assume part of the responsibility for not releasing personal data arbitrarily. (Ed. note: A more detailed analysis of the report and its implications will appear in a future edition of the *CAUT Bulletin*.)

**And in Ontario .....**

The Hansen report has already had an impact in Ontario where the government has recently issued privacy guidelines restricting requests for an individual's social insurance number to income tax and health-related matters.

**NRC plan approved**

The government has approved in principle the National Research Council's long range plan — outlined in its report, *The Urgent Investment*. There has however been no announcement about funding levels for the NRC's plan.

**Retirement in Quebec**

Quebec's Bill No. 15, which abolishes mandatory retirement at any age, has been tabled until the national assembly reconvenes this fall. The legislation will apply to all private sector employees governed by the Quebec labour code, government and para-public workers. It will not, however, apply to those already retired or who have quit, those who have taken early retirement or been fired before the bill becomes law. An employee who elects to work past age 65 will continue to pay into the company pension plan and the employer must pay its share into the pension fund. Quebec would be the first province in Canada with such legislation. The PQ government is also expected to introduce legislation in the fall which would facilitate early retirement for those age 60 or over. The government is also committed to adopting legislation making private pension plans portable.

**And in Manitoba .....**

The Manitoba Organization of Faculty Associations has submitted a brief to the one-man commission investigating mandatory retirement in that province. The brief calls for the abolition of compulsory retirement for a five-year trial period. The commissioner's report is expected by September 1981.

**Immigration confusion clarified**

Immigration Minister Lloyd Axworthy's announcement about changes in the immigration policy covering academics seems to have generated some confusion. Immigration officials have confirmed, however, that in future universities will be required to advertise first for Canadian candidates* from inside Canada as well as those abroad, and evaluate their suitability before seeking foreign faculty for teaching positions in Canada. The previous regulations — in effect since 1977 — only required universities to ensure that faculty vacancies were brought to the attention of Canadian citizens and other permanent residents. There was no "Canadians first" policy.

As previously, government officials will make no qualitative assessment of the candidates suitability, nor will there be any changes in current verification procedures by local Canada Manpower officials before a foreign academic is appointed. The new immigration policy does not apply to visiting professors, i.e. those who work here for short periods of up to one year, nor does it apply to foreign graduate students who will continue to be able to work as part of their graduate programmes.

*Including landed immigrants and other permanent residents in Canada.

**The final report on the RCMP**

The second and final report of the three-man Commission of Inquiry concerning Certain Activities of the Royal Canadian Mounted Police, is likely to be made public in the late summer or early fall. Its earlier report, published in October 1979, made a number of recommendations concerning disclosure of information on security and intelligence activities and the administration of criminal justice under the Officials Secrets Act and the freedom of information legislation. The CAUT, which made two submissions, together with the Canadian Civil Liberties Association, is exploring the possibility of holding a national conference on the McDonald Commission's report sometime soon after the release of the document.

**A new newsletter**

Commencing with the October issue of the *CAUT Bulletin*, National Notes will be written by Donald Savage, the Executive Secretary. Jill Greenwell will become editor of a Relations with Governments newsletter — Lobbying Update — which will be produced monthly. Circulation for Lobbying Update will be restricted to Presidents of local and provincial faculty associations, the CAUT Board, and the Consortium of National Scientific and Educational Societies.


## FACULTY POSITIONS

## SCHOOL OF ARCHITECTURE

The School of Architecture at the University of British Columbia currently has approximately 180 students enrolled in a three-year Bachelor of Architecture program requiring a first degree for entrance. Conversion of this program to a M. Arch. degree program is scheduled for 1982-83 with appropriate course revisions and additions. Additionally a separate innovative, post-professional Master's degree program is in the planning stage.

Three faculty positions are open primarily for persons to teach in the design studio and in specialized courses. Candidates should have prior teaching experience, and a post-professional degree or experience in an area of specialization such as urban design, building science and technology, history and theory, or computer-aided design. Tenure track appointments are available at appropriate rank and salary and could commence January 1, 1982.

Please send applications accompanied by supporting documentation and the names of three referees to:

Professor Douglas Shedboll, Director
School of Architecture
University of British Columbia
6333 Memorial Road,
Vancouver, B.C. V6T 1W5
Canada.

Telephone: (604) 228-2206

UBC

# Professorial assessments: public or not?

The issue of whether or not the assessments written by professors about other professors should be confidential or should be known to the candidates has provoked long and vigorous debate in the university community.

The CAUT has taken the view that candidates should know the nature of assessments in order to allow them to rebut what they might consider false testimony.

The pros and cons of this approach were aired before the Standing Committee on Justice and Legal Affairs over the application of freedom of information legislation to the granting councils. The protagonists were Tom Siddon, Conservative M.P. for Richmond-South Delta, and Dr. A.N. Bourns and Dr. René Levesque representing the Natural Sciences and Engineering Research Council. NSERC was supported by André Fortier of the Social Sciences and Humanities Research Council.

**Mr. Siddon:** Gentlemen, I appreciate the concerns you have registered because as a scientist myself I spent some 10 years within the university setting, reviewing grant applications, receiving grant applications, submitting papers, having them reviewed, reviewing papers, reviewing applications from graduate students for enrolment, and writing job recommendations for my own graduates. So I appreciate many of the concerns that you have placed before the committee today.

However, I have to focus in on the closing sentence of your brief, gentlemen; page 4, where you write the following words:

> Without such protection of the referee their ability to get objective professional advice will be seriously jeopardized.

Gentlemen, I would like to suggest that the principle you are trying to establish here of confidentiality with respect to the names of referees has much broader implications for the success or failure of this freedom of information legislation. Readily, the moment special status is granted the scientific community in providing for the anonymity of referees, then the whole system of review for DREE grant applications, parole applications, community assessment reports that are done and submitted by confidential sources, the financial and security business checks that go into the extending of a loan by the Federal Business Development Bank, a whole host of decisions made within government by professionals are also, then, subject to the same kind of request. Should not those professionals also be granted the same right of anonymity in making their recommendations in a confidential way that you were requesting? I would suggest, gentlemen, that if that were the case, the whole essence, the whole thrust of this freedom of information legislation could be placed in jeopardy. My feeling, as a person who has been through the process, both on the decision-making end and at the receiving end of grants in aid, is that if certain individuals have the power to make a determination on the spending of public funds, those decisions and those statements that they make in regard to an application should be open to full public scrutiny.

I would like to put a different twist on the presentation we have received this morning. Mr. Chairman. The suggestion has been made that somehow the quality of the refereeing will be reduced, somehow we might open the doors to the establishment of an old-boy system. I would like to suggest, Mr. Chairman, that in fact the quality of a referee's report is enhanced if he feels someone else might want to look at it, in particular if the applicant is going to see it sometime. On any occasion on which I have been asked to refcree a paper or an application, I have always had to ask myself how I would react if the applicant were to see what I wrote down, and whether I would be prepared to stand the test of any challenge — in terms of private harassment, before the courts, or by any means whatsoever. Would I be prepared to defend by adjudication of that application, from a conscientious point of view in view of my scientific credentials and my own self-respect?

So, Mr. Chairman — and I would welcome the response of the witnesses to this allegation — I suggest that, in fact, the present system of secrecy, of keeping the referees' names in confidence, tends to contribute to the proliferation of the old-boy system, if you like, and a system of open accountability by the referees could, indeed, enhance the quality of the referees' report. The question really, Mr. Chairman, comes down to this: why special status for referees who are refereeing on important decisions regarding public funding to be expended by the scientific sector? Why special status? As I indicated at the beginning of my remarks, it opens up a whole precedent, which has tremendous implications for the success or failure of the freedom of information legislation.

**The Chairman:** Dr. Bourns

**Mr. Bourns:** Mr. Chairman, I will attempt to respond to the two points.

As to the first, why special status, I find it difficult to respond, other than to say that the whole structure of scholarship internationally is based upon a referee system, either for grant applications or for general publication, in which the anonymity of the referees is preserved. In both Britain and the United States, for example, we find that this kind of system is almost universal. In the United States, individuals are asked if they will waive their right; if they do not, that is a different matter, but when they do, and almost all do, anonymity is preserved.

With respect to your second point, I wish you were right, sir. Indeed, the council decided after the first year, and after receiving unfavorable responses from so many persons who had been asked to serve as referees, that it still would try to give the system, the new approach, every possible chance of working. The council decided to go through a further competition to see if, perhaps scientists could learn to live with the new requirement. But after the second competition, the wave of protest, the rejection of invitations to serve as referees from some of the truly outstanding scientists — I am a chemist, and I go through this pile of letters and I see one outstanding chemist after another, often in Canada yes, but very often in Britain and in the United States, saying they just refuse to work with that kind of system. Human nature is this way. I think, as I have said, it is because the scientific community in some fields is so very, very small, and it is important to maintain good relationships between scientists, between colleagues.

**Mr. Siddun:** Mr. Chairman, if I might be permitted just a closing comment.

I appreciate the response of the witness, but it does suggest that there is indeed a problem. If there is this need for secrecy then there is something that is being protected, and I am puzzled as to what it is that these eminent scientists are trying to protect. If they are, as the witnesses have said, persons respected and highly regarded in their profession, then I believe, given clearly defined terms of reference as a basis on which these assessments are made, those highly respected persons should be prepared to stand the test of scrutiny. If the implication is that all scientists are gentlemen, sir, I have to contest that. I have been on both sides, as I have said, of these types of decisions. I generally can read between the lines of an assessment and pinpoint who I think wrote that review, in any event, but I cannot go to that person and say, "You have done my character, you have done my work, an injustice, and I urge that you write a paper or you write some explanations to the scientific journal retracting the implications you have cast upon my research." I do not have that option.

Indeed, there is a pecking order, there is an old boy's system at work, and the proposal you have put before us this morning, gentlemen, would perpetuate that system. I am rather concerned because it is a reflection on the problem that presently exists, rather than an attempt to solve the problem.

**The Chairman:** Mr. Lévesque.

**Mr. Lévesque:** Dr. Bourns and myself are also members of the faculty of a university and we do make judgments. We are paid to do that; that is our job. We judge graduate students, we judge theses, we give exams, we give grades. We have students protesting. They come to our office, they complain. But that is our job; that is what we are paid for. If we do not want to do that, we can go and do something else.

Now this is not the same situation as asking somebody in England to give us his advice on such and such a proposal; and then our committee, looking at this advice, will come to a decision. Not only will we look at his advice, but at your advice and that of others as well. That person is not paid, it is just a favor in the scientific community among colleagues.

Now why should he do this if the results of making a few of these judgments are that he will be bugged continuously by people calling him, writing him, meeting him at scientific meetings, arguing with him about this judgment? He will say, "Do not bother me. Really, do not bother me. Why should I spend all that time trying to justify my position?"

As I said earlier, I have never seen anyone whose grant was turned down who agreed with the decision. They always think the judgment is unfair. That is also human nature. So automatically they will, when they meet that person at a scientific meeting, discuss the thing with them. And if he is a very important person, if he is a very good scientist, if he has made 20 or 25 of these judgments, why should he be bothered?

**Mr. Siddon:** It is an imperfect world sir, but I think the self-esteem of those eminent scientists, in the final analysis, should dictate that they are prepared to stand publicly behind the comments they make on applications and scientific works.

**Mr. Lévesque:** Or not make the comment?

**Mr. Siddon:** Or not make a comment.

# Censured Administrations

The following university administrations are under CAUT censure:

**Board of Governors**
**UNIVERSITY OF CALGARY (1979)**
The third stage of censure was placed on the University in May, 1980.
**President and Board of Regents**
**MEMORIAL UNIVERSITY OF NEWFOUNDLAND (1979)**
The third stage of censure was placed on the University in May, 1980.
**TECHNICAL UNIVERSITY OF NOVA SCOTIA (1980)**
(formerly Nova Scotia Technical College)
The first stage of censure was placed on the University in May, 1980.

Note: 1. Under the first stage of censure faculty members are advised to inform themselves fully of the procedures which exist for the protection of academic freedom before accepting an appointment at the censured university. The censure is advertised regularly in the CAUT Bulletin.
2. Under the second stage of censure faculty members are advised to inform themselves fully of the procedures which exist for the protection of academic freedom before accepting an appointment at the censured university. The censure is advertised more widely in Canadian and foreign faculty association and other publications.
3. Under the third stage of censure the CAUT Council recommends that members of faculty associations not accept appointments at the censured university.
4. Because the CAUT does not recommend that faculty members decline appointments when a university is under the first or second stage of censure the *CAUT Bulletin* continues to carry advertisements for positions vacant at censured universities. Such advertisements are not carried in the *Bulletin* for universities under the third stage of censure.

Information about the events which led to censures may be obtained from:
The Executive Secretary
Canadian Association of University Teachers
75 Albert Street, Suite 1001
Ottawa, Ontario
K1P 5E7

# Reagan's science research goal: 'military might second to none'

by Wayne Kondro

WASHINGTON — "Military might second to none" should be the aim of scientific research in the U.S., President Reagan's new science advisor told the American Association for the Advancement of Science.

"It is no longer within our economic capability, nor perhaps even desirable, to aspire to primacy across the spectrum of scientific disciplines," said George Keyworth, head of the White House Office of Science and Technology Policy.

"Keyworth's message suprised the scientific community.

Although the rush to military research has been evident for years, nobody from the administration has produced such a bald-faced concession that the U.S. should stand second in the world scientific community — except in military science.

Pertinent figures tell the story. In the '60s, the U.S. spent about three per cent of the gross national product (GNP) on research and development. This spending laid the groundwork for rewards now being reaped: new technologies on the commercial market and a harvest of scientific prizes.

Next year, the U.S. will spend less than two per cent of the GNP on research and development. And well over half of this money will be spent on military-related research.

Research funding for the Department of Defence (DOD) will soar to roughly $22 billion, a leap of $5 billion in one year, and double the total of five years ago.

The DOD list of military expenditures in 1982 includes among its priorities the development of new precision guided missiles, lasers, particle-beam weapons (akin to science-fiction death rays), and chemical warfare munitions.

Much of the research is oriented towards the coming arms race in space. Although non-military research for 1982 is again nearly $20 billion, it's down when inflation is calculated.

Clearly, Reagan hopes to propel military research into the fast lane of science. He has cut non-military programs like social and behavioral science, international science and science education.

Over the last decade, science advocates, noting the decrease in funding for basic research, have warned this will weaken the economy. They have urged a resurrection of basic science.

Funding for basic research at universities has plummeted; scientific pioneers must fight an administrative war for money before they can start work.

The U.S. public is aware of the decline, and has partly contributed to it. Science hasn't fared well in public minds over the last decade as anti-technology groups proliferated and Washington decision-makers took note.

Seen by many as the purveyor of evils like pollution and resource depletion, science was accused of putting the U.S. on a carousel of destruction. Others saw it as a threat to family and religious values.

It's a scenario none would have expected years ago. Increasingly, politicians and special interest groups seek to influence national research policy. No longer accepted as the necessary foundation for future growth, research now falls in the terrain of political whim, the newest of which is escalated defence expenditures.

*Reprinted from THE CITIZEN*

# British universities fight cuts in grants

LONDON — University chancellors here are trying to mount a campaign against cuts in Government grants that will eliminate 20,000 student places from British universities by 1984.

All universities have just received letters from the University Grants Committee detailing grant reductions that average 17 per cent. Some institutions will lose between 25 per cent and 33 per cent of their national Government grant.

The economies suffered by Canadian and U.S. universities during the present recession pale against the latest British cuts.

The cuts will eliminate 3,000 lecturers' posts and 4,000 non-academic jobs at a time when British universities are already bracing themselves for a decline in foreign students after sharp Government increases in foreign student fees.

The reduction in student places will take place at a time when there will be a record number of 18-year-olds in the British population and a growing problem of unemployed young people among Britain's 2.6 million jobless.

The peak of the young population "bulge" reaches the 18-year-olds in 1983 and the population of 18-year-olds does not return to the level of 1980 until the year 1987.

The Conservative Government says, however, that it cannot afford university placement as a solution to the unemployment of high school graduates.

In detailing the cuts, the University Grants Committee has recommended specific changes to each university though institutions are free to make the final decisions on what to cut.

Department closings and mergers are among the recommendations. Universities that had already made conditional offers of places to students for this September say they will do their best to honor them.

The cuts have not been applied uniformly. Cries of discrimination arose when it became apparent that Oxford and Cambridge will escape lightly, with Oxford standing to lose only 300 students from its present 10,700 and Cambridge only 210 from its present 10,490.

By contrast, three Midlands universities will suffer the worst cuts, though they had been confident that their technical bias would protect them because the Government wants to promote better technical training at British universities.

In this Midlands group, Salford will lose a third of its grant and a third of its student places; Bradford will lose a third of its grant and a fifth of its student places; and Aston will lose a quarter of its grant and a fifth of its student places.

The polytechnics will not be able to absorb many of the outcasts, as the Government is trimming all education spending as part of its public sector cuts. The grant cuts are forcing universities to begin reducing student places immediately.

*Reprinted from THE GLOBE AND MAIL*

# NOTES FROM WASHINGTON

by Clive Cookson

## Hard times ahead for higher education

The Middle Income Student Assistance Act (MISA) of 1978 and last year's Higher Education Act marked the two proud pinnacles of the college and university associations' influence in Washington. Both provided for a huge expansion of federal aid to higher education.

But, in a few months this year, President Reagan's budget-cutting steamroller has effectively demolished MISA and half-flattened the more substantial Higher Education Act (which reauthorized the Education Department's college and university programs for the next five years). Congress now seems likely to slash federal spending on education, including student loans and grants, by about 20 per cent — which is close to the reduction sought by the administration (see April *CAUT Bulletin*).

Education lobbyists, who had been expected to blunt the impact of Reagan's budget-cutting by exerting pressure in the traditional way during the complex congressional budget process, have been left virtually impotent by the administration's brilliant use of a congressional procedure called "reconciliation". This mechanism, whose sweet-sounding name belies its ruthless nature, had never been employed to full effect before, thought it has been available since the mid-1970s.

### Reconciliation used to rewrite legislation

The process removes much of the power that used to be wielded by authorizing committees (which erect the legislative framework and set spending ceilings for federal programs) and appropriations committees (which decide how much will actually be spent each year). They must now "reconcile" their programs with an omnibus package of budget cuts agreed in advance by Congress.

Reconciliation does more than force simple cuts in expenditure. The conservative coalition of Republications and right-wing Democrats that is now in effective control of Congress is using it to rewrite the basic legislation underlying federal programs.

In education, the most radical legislative changes affect elementary and secondary schools. Twenty-five separate programs, including grants for adult education, teacher centers and science teacher training, will be lumped together into a single block grant of $589 million a year. That will be distributed amongst the states and then passed on to school districts with few strings attached.

The higher education portions of the budget reconciliation bills passed separately by the Senate and House of Representatives at the end of June both agree quite closely with the proposals that the Reagan administration put forward four months ago. But there were differences between them, which were being ironed out by a House-Senate conference at the time of writing.

The most striking change in student financial aid is that an income test will be reimposed on guaranteed student loans, which have been available to anyone, regardless of family circumstances, since the passage of MISA in 1978. Students whose parents earn less than $30,000 a year will automatically be eligible for a loan; others will qualify only if they prove financial need. Congress left the Education Department to work out details of the means test.

More money will be saved by imposing a new "origination fee" of five per cent of the value of a guaranteed student loan when it is first taken out. But the interest rates on guaranteed loans have not been raised. They are still interest-free while the borrower is a full-time student; the rate is nine per cent during the payback period after graduation.

### Interest rates jump on loans

However the rate on federally guaranteed loans to parents (as opposed to the students themselves) jumps from nine to 14 per cent. And the interest on National Direct Student Loans — a separate "campus-based" program administered by colleges and universities for needy students — rises from four to five per cent.

The reconciliation bill also sets a spending limit for the first time on basic student grants — which are renamed Pell Grants this year in honour of Claiborne Pell, the former chairman of the Senate Education Subcommittee — for the next three years. The maximum grant for the poorest students is unlikely to rise above $1,800 a year over that period.

Payments from the Social Security system to students whose parents are dead, retired or disabled will be phased out from next June, in accordance with the wishes of the Reagan administration. These benefits are not based on financial or educational need, the White House says; beneficiaries who really need the money will be eligible for regular grants and loans, like any other students.

Many other programs benefiting colleges and universities were cut by the reconciliation bill, including the National Endowments for the Arts and the Humanities. The two endowments' combined budgets were capped at $233 million a year until 1984; their appropriation for 1981 had been $310 million. However, Congress did at least spare NEA the full horror of the 50 per cent cut that the Reagan administration had originally proposed.

# BARGAINING TALK
# NÉGOCIONS

by Howard Snow, Professional Officer, Collective Bargaining

York ratified a new collective agreement in May. The settlement was reached after the Faculty Association (YUFA) launched a job action campaign following the failure of mediation. A faculty vote supported the Job Action Committee in its actions up to and including a full scale walk out. The initial and only course of action used was to withhold final grades. Negotiations resumed and a settlement was reached in the latter part of May. The monetary package of the new agreement calls for the following: an across the board increase of 8.5%, a career progress lump sum increment of $910, a special salary adjustment ranging from $1,200 for those earning less than $35,000 to $0 for those earning more than $50,000, and a merit pool equal to 0.5% of the total unit base salary budget. The package includes adjustments in dental plan, child care and housing loan benefits. The contract also provides that YUFA shall receive all financial information given to the Senate APPC and its sub-committees with the exception of draft reports and working documents. There is a 17 week paid maternity leave provision and a requirement that the Association be informed regarding any employer agreements intending to assign copyright materials produced or to be produced by a employee to any party except that employee.

**Trent University**

TRENT has concluded its first collective agreement. The settlement came on the day of a scheduled faculty strike meeting. Thirteen months of negotiations followed by the efforts of a provincial conciliator, Murray Lapp, had failed to produce agreement on salaries. The Association of the Teaching Staff of Trent University sought either a negotiated salary settlement or an independent arbitration of the dispute. The Board of Governors proposed a form of conditional arbitration whereby the arbitrator would be bound by the Board of Governor's unilaterally determined financial limits. With assistance from CAUT staff, the Trent Association negotiated a fair settlement in a week of intense bargaining. The three year collective agreement calls for a 7.0% scale increase for 1980-81; 6.0% on scale on each of July, 1981, January, 1982 and July 1982, and 5.5% on January, 1983. There is a progress through the ranks scheme worth 3.0% per year. Other features of the contract include the following: librarians very closely approximate faculty in conditions of employment, there are to be no dismissals nor involuntary transfers for reasons of redundancy and the procedures for financial exigency follow the CAUT guidelines. Other noteworthy provisions entail a reversal of the burden of proof where a pattern consistent with discrimination is established and the establishment of tenure-track part-time appointments.

**Technical University of Nova Scotia**

In June the Faculty Association at the TECHNICAL UNIVERSITY OF NOVA SCOTIA voted 53-2 to authorize a strike. Thirteen months of fruitless negotiations had preceded this vote. The Administration continues to deny the right of faculty to effectively participate in the functioning of the University. Upon request of the Faculty Association a mediator was appointed who has declared an impasse but has not as yet issued a report. While the York Faculty went on strike, a full scale walk-out is quite possible at TUNS.

**University of Ottawa**

The Association of Professors of the UNIVERSITY OF OTTAWA has ratified a three year collective agreement. The contract calls for an economic increase of 10.0% for May, 1981 plus the progress through the ranks increment. For 1982-83 and 1983-84, all salaries will be increased by a percentage equal to the annual average increase in the previous year for the Consumer Price Index, less one per cent, plus the progress through the ranks increment. There is a merit fund of $68,000 and an anomolies fund of $100,000. Non-monetary changes include an extensively revamped grievance procedure, personal files that are more open and promotion and tenure working on a system of closed files such that no extraneous matter is placed before committees. There is an article on the evaluation of all aspects of teaching. Members on pre-tenure contracts now have full rights to grieve a dean's decision not to renew the contract. The agreement also includes improved protection in the area of financial exigency and programme redundancy.

**University of New Brunswick**

NEW BRUNSWICK has ratified its second collective agreement. The settlement calls for an economic adjustment of 6.0% in July, 1981. There will be a fixed dollar adjustment in January, 1982 ranging from $2,825 for those earning less than $37,000 to no adjustment for those earning above $47,000. For July, 1982 and January, 1983 the economic adjustment will be one half the Canadian Price Index in the previous year. The progress through the ranks increment, which can be withheld, is $1,009 in 1981 and $1,134 in 1982. Another feature of the new contract is a changed arbitration procedure bringing it more in line with CAUT policy.

**University of Manitoba**

MANITOBA reached agreement on a new 2 year collective agreement. The contract calls for a scale increase of 8.1% in April, 1981, a 0.5% increase in scale in January, 1982, then 9.1% in April and 1.0% in January, 1983. The compound increase over the package is 18.83% (excluding increments).

**University of Windsor**

THE UNIVERSITY OF WINDSOR Faculty Association is negotiating salary under a reopener clause. At this writing the Association wants to terminate the collective agreement (which ordinarily expires next June) in order to get in a strike position. The reopener clause without arbitration to resolve the dispute is creating difficulties.

**University of St. Thomas**

The Faculty Association of the UNIVERSITY OF ST. THOMAS has reached agreement on its salary reopener. The salary settlement for 1981-82 calls for a 9.5% cost of living adjustment and a $1,008 career progress increment.

## CAUT COMMITTEE ON COLLECTIVE BARGAINING

The CAUT solicits nominations to its committee on Collective Bargaining to fill an unexpired term. Nominations should be sent by September 30, 1981 to Israel Unger, Chairman, Elections and Resolutions Committee, 1001-75 Albert Street, Ottawa, Ontario, K1P 5E7.

A nomination should have the approval and be accompanied by the curriculum vitae of the nominee.

## COMITE DE LA NEGOCIATION COLLECTIVE DE L'ACPU

L'ACPU demande instamment que soit proposées des candidatures en vue de l'exercise d'un mandat non-expiré. Il faut envoyer les candidatures pour 30 septembre 1981 à M. Israel Unger, Président du Comité des élections et résolutions, 1001, 75 rue Albert, Ottawa (Ontario), K1P 5E7.

Chaque candidature doit être approuvée par le candidat et s'accompagner de son curriculum vitae.

**University of Alberta**

An arbitration award has been received subsequent to a hearing some months ago regarding the salary impasse between the Association of Academic Staff of the UNIVERSITY OF ALBERTA and the Board of Governors. Mr. R.B. d'Esterre found in favour of the Board's position. The award provides for an average increase on scale for 1981-82 of 11.27%. Academic staff members receive an adjustment of 8.6% plus $1,000 for faculty, librarians and faculty service officers. Administrative and professional officers receive an 11.85% adjustment. There is an increase in merit increments, pension costs and professional expense allowance.

**University of Calgary**

CALGARY has negotiated a 1981-82 salary settlement. The settlement provides for an average increase of 14.3%, excluding merit increment, for all faculty. Salaries of sessional instructors increase by 28.9% and effective January, 1982 there is an additional 3% increase. The librarian salary floor is increased by 1 merit unit, the travel fund by 14%, and the professional development allowance by 5%. Also, funding from outside sources during sabbatical leave can now provide up to 125% of salary.

**Brock University**

The 1981-82 salary settlement at BROCK has been ratified. There is a scale increase of 10.0%. For faculty whose 1980-81 salary is below $53,600 there is a career development increment ranging from $325 to $600 plus a catch-up increment of $100 to $350. The settlement also includes a merit pool, several changes to the fringe benefits package and increases to overload teaching stipends.

**University of Victoria**

A two-day hearing on the librarians' application for certification at VICTORIA was held in June by the B.C. Labour Relations Board. The hearing was devoted exclusively to the question of the appropriateness of a unit of librarians. The employer is opposed to the unit, which it feels is too small, and is arguing that librarians should be part of a more comprehensive unit. Faculty in B.C. are excluded from the Labour Code. The employer wants a unit of librarians and other administrative and professional staff.

**Mount Allison University**

Another hearing in the MOUNT ALLISON UNIVERSITY Faculty Association certification application before the New Brunswick Industrial Relations Board was held on June 26. An earlier certification vote had resulted in a sizeable Association lead but there were so many contested ballots that a hearing was necessary. That problem has now been resolved; nevertheless the University is now going to argue that faculty are not employees under the Act. Apart from this last issue the Industrial Relations Board is prepared to rule on the certification.

**CAUT Collective Bargaining Conference**

Some 130 people attended the fourth annual CAUT National Collective Bargaining Conference held in June at Kimberley, Ontario. Two new programmes — Verbal Skills in Negotiation and Pre-Arbitration Grievance Handling — were among the various sessions run at the conference. Both met with approval from those attending and CAUT staff members are prepared to run these sessions on a local basis. Any requests should be directed to Vic Sim at the CAUT office, who is co-ordinating requests for both programmes.

# AMNESTY INTERNATIONAL

by Dr. John C. Jones

## Repression in Colombia

In 1980 an Amnesty International mission to Colombia found that political prisoners were being tortured in military installations and that there existed in the country a pattern of widespread arbitrary arrests and torture.

### Background

The modern Colombian republic came into existence after the decisive victory of Simon Bolivar in 1819 at the battle of Boyaca. Throughout the 19th and much of the 20th centuries there has been constant conflict between two main political factions.

The Conservatives following the principles of Bolivar favoured a strongly centralized structure with the Church playing an important role. The Liberals on the other hand, preferred the ideas of Santander, the first vice-president, who was anticlerical and wanted a looser federal structure.

### 'La Violencia' (1947 - 1958)

'La violencia' is a generic term that refers to the civil war that lasted on and off from 1947 until 1958. The cardinal event that triggered the worst phase of the violence was the assassination of the charismatic Liberal leader Gaitan in 1948. The subsequent rioting in Bogota left much of the capital city in ruins and gave the Spanish language a new word, 'El Bogotazo'.

For the next decade armed groups of conservatives and liberals roamed the countryside. It is believed that up to 200,000 people died during this period of civil war.

### The National Front (1958 - 1974)

To put an end to the civic disorders the Liberal and Conservative parties decided to set up a system whereby each party would alternate in power for four presidential periods and agreed to share the allocation of public offices. In a modified form the National Front continued until 1978.

### Human Rights and the State of Siege

The Colombian constitution includes human rights guarantees and on paper Colombian citizens would appear to enjoy adequate protection. Colombia is also signatory to numerous international conventions governing human rights. However, Colombia has been under emergency measures — the state of siege — almost continuously since 1949.

Intended initially as a temporary and exceptional measure, the state of siege has become a permanent instrument of government. It has led to the virtually permanent suspension of human rights guarantees in Colombia. The state of siege has been used to justify massive raids by security forces, to control the private and social lives of people living in rural zones under military occupation, to detain people involved in trade union activities and to try civilians before military tribunals. The state of siege and other decrees have also facilitated widespread political arrests, prolonged detention without trial, torture, summary trials and political murders, particularly in peasant or Indian areas.

Another measure influencing conditions is the 'Security Statute' of September 1978, under which a wide range of actions and offences — including the ill defined charge of 'disturbance of public order' — are placed under military jurisdiction. Defendants are effectively denied the right of appeal in cases related to social protest and some authorities such as police chiefs, are empowered to decide what, in fact, constitutes a crime.

In the military courts, with the military acting as both judge and accuser, normal defence rights are denied and in some cases defence counsel have been obstructed, harassed and obliged to leave the court.

Another irregularity is that members of the armed forces or police are not held accountable for any homicide committed during 'security operations'. This has made it possible for the armed forces to resort to extra-judicial executions with impunity. In 1979 the State Council received more than 30 indemnity demands from the families of persons who had been killed by the army or the police.

### President Julio César Turbay Ayala and the Security Statute

President Ayala took office on Aug. 7, 1978 after general elections with a 68% abstention level. On September 7 the new government introduced the 'Security Statute'. Very shortly afterwards Amnesty International began to hear of very large numbers of arrests, particularly after January 1, 1979, when the M19 guerrilla organization broke into an armoury and stole 5,000 weapons. According to the then Minister of Justice over 68,000 persons were arrested between August 1978 and August 1979.

In the summer of 1979 President Turbay Ayala made a European tour where he was frequently questioned concerning reports of human rights violations. Finally at a news conference in London in July the President extended an invitation to Amnesty International to send a mission to Colombia.

### The Amnesty International Mission to Colombia 15th - 31st January, 1980

The three man AI mission included Toronto psychiatrist, Dr. Federico Allodi, who is also a member of Amnesty International's Canadian medical group, Antonio Carretero Pérez, a judge and law professor from Madrid, was the legal expert while the International Secretariat of AI was represented by Edmundo Garcia.

The mission met more than 400 political prisoners in 11 prisons, two military installations used as prisons and in two hospitals. It also met with senior representatives of the government and opposition parties, with trade unions, medical associations and with many other diverse groups. The majority of the prisoners interviewed gave evidence of torture or maltreatment. Evidence also came from ex-prisoners and their families and from political and professional organizations.

### The typical pattern of arrest

After a dawn raid on a suspect's house, the detainee is taken to a military centre, held incommunicado for several days, in some cases blindfolded and handcuffed, kept standing almost continuously and deprived of food and sleep. The detainee may be subjected to intense interrogation at any hour of the day or night and frequently to psychological or physical torture.

The evidence made available to AI makes it clear that political prisoners are tortured in military centres in Colombia, to such an extent that this is happening systematically. AI has identified at least 33 torture centres with over 50 methods of torture in common use.

The great majority of the victims have been members of peasant, Indian and trade union organizations, although doctors, lawyers, journalists, members of slum dwellers associations, as well as teachers and academics, students and relatives of detainees have been arrested during and since 1979.

### Specific Cases of Torture

*Eduarda Loefsner Torres af the Natianal Pedagogical University,* "...I was exposed, from the beginning, to the rain while almost naked. I was beaten every time I denied connections with persons and events. I was ordered to shut up when I cried because of the pain. At times I was pulled up from my hair while kicked. I fainted several times.

Upon regaining consciousness the beatings began once again. My head was submerged several times in dirty water, which I had to swallow to avoid drowning. Then they drove me across a yard. As I was blindfolded I fell several times. They pulled me up from my hair. I was hanged several times from my hands, which remained tied on my back. Sometimes I was, while in this position, treated as a punching bag.

All this time I continued to be subjected to unending questions interspersed with insults and threats. At one time they threatened me with witnessing the rape of my wife. (This came to the verge of being true since she was once ordered to undress) ...I was hit with a machete in the forehead and the chest. I felt my body parting... I was compelled to stay standing for ten hours on a wet brick...

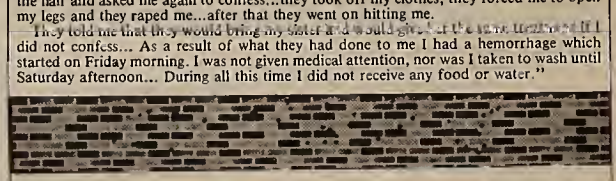
I lost track of the time. I felt convulsions all over my body. I could stand up no longer. My nose was bleeding. At times the idea of suicide was obsessive. My torturers permitted me, from time to time, to look at my wife from a certain distance. There she was under the rain, barefoot, emaciated, numb."

*Ana Delia Murilla, teacher,* "my little son (6 years old) and I were blindfolded. I was hit with the butt of the rifle and received several blows in the face. When we arrived at the BIM quarters the mistreatment began once more. I was taken to something like a cell. Everything was cold and coarse.

All throughout the night I was subjected to electric shocks while questions poured on me. This continued for 15 days long. Constant threats of rape and other psychological pressure were directed against me. I was on the verge of a miscarriage because of the stress. At that time my pregnancy was seven months old..."

*Maria Etty Marin, factary worker,* "They made me stand in the rain for hours... After this they made me stand on an ant-hill. They pulled off my trousers... and introduced ants in my genitals... They took me to a lake... They told me to admit that I had weapons... As I could not admit something that I was not guilty of, I said no. Immediately they submerged me in the water. When I could no longer breathe...they pulled my head out of the water by the hair and asked me again to confess...they took off my clothes, they forced me to open my legs and they raped me...after that they went on hitting me.

They told me that they would bring my sister and a child [illegible] if I did not confess... As a result of what they had done to me I had a hemorrhage which started on Friday morning. I was not given medical attention, nor was I taken to wash until Saturday afternoon... During all this time I did not receive any food or water."



### Recent Events

It is obvious that the internal situation inside Colombia is complicated and is evolving unpredictably. Amnesty International has submitted recommendations for ending human rights abuses but the Colombian authorities have rejected them. In fact President Ayala spent 58 minutes on television denouncing AI.

The government and the civil and military authorities have denied the human rights allegations which they attributed to subversive agents. The government maintains that suppression is justified on grounds of national security and the activity of armed revolutionary groups inside the country.

In October 1980 there were numerous detentions of students and teachers following demonstrations against rising costs. In recent months there have been an alarming number of arrests in rural areas. The victims have been peasants, members of local human rights groups and trade union leaders. Many of them have been tortured.

Ironically, as this article was being written, the Ottawa office of Amnesty International received a phone call from Bogota. A mother and her three daughters had just been arrested! It's difficult for Canadians to imagine living under circumstances such as this.

Anyone who would like to help Amnesty International with its work please contact the Ottawa office at 2101 Algonquin Avenue, P.O. Box 6033, Ottawa, Ontario, K2A 1T1.

*Dr. John C. Janes is Colombia Coordinator, Amnesty Internatianal Canada (English speaking) — and Member of the Executive, Amnesty International Canada (English speaking). Extracts fram testimanies were taken from the Amnesty International Report on Colombia.*

*National Security State new model for development*

# *Human rights and military repression in Latin America*

**by Eric Fawcett**

Latin America is a continent with a population of 330 million. The great majority inhabit countries which have lost — or never had — any semblance of democratic institutions. In many cases, these countries are controlled by military juntas which have come to power since World War II: Brazil 1964, Chile 1972, Uruguay 1973, Guatemala 1974, Argentina 1976, El Salvador 1977, Bolivia 1980.

Latin American economies are based on the centuries-old pattern of resource exploitation at negligible benefit to the indigenous population, and single-crop agriculture which is subject to the vagaries of world market prices. Effective trade unions are largely non-existent.

Today there exists in Latin America a new model for development called the National Security State. It is characterized by the drastic lowering of tariffs resulting in the collapse of local banks and industry, and followed by depressed wages. Next, the elimination of social services and the welfare system of support for the poor in order to finance massive increases in military spending leads to galloping inflation placing a further burden on the people.

Foreign multinational corporations also exploit the unemployed labour force by offering jobs at starvation wages. The only beneficiaries of this process are investors in the multinational corporations, the local military and their foreign bankrollers, and a very small, very wealthy elite who spend much of their time out of the country.

Any protest by the people against their drastically deteriorating social, political and economic conditions is labelled communist and brutally repressed by right-wing death squads, the police and the paramilitary. The latter are trained in methods of civilian interrogation — better described as torture — by foreign advisors, a practice which the Reagan administration justifies as necessary to help fight international terrorism.

The military proper, which essentially constitutes an internal army of occupation, stands ready to destroy any serious revolutionary movement with an awesome panoply of death-dealing equipment, including helicopter gun-ships, anti-personnel incendiary and chemical weapons, some even more deadly than those used by the U.S.A. in Vietnam. Much of this weaponry is supplied by the Western industrial nations, but the weapons industry in Latin America itself is now one of the continent's most rapidly growing industries.

Let us now examine the consequences of this Orwellian tragedy for a relatively small part of the population of Latin America: the academics and the scientific community. I shall restrict discussion to Argentina, Chile and Uruguay since they had large prestigious universities — I use the past tense since these universities are now hollow shells of their former selves and the scientific communities hardly exist any longer.

The situation has been well documented recently in three articles in the *Bulletin of Atomic Scientists* (February 1981 pp 14, 24 and 29) from which I shall quote extensively.

Politically active Chilean academics who supported former President Allende, fled that country after the coup of 1972. Those who remained have suffered. At the University of Chile, the University of Concepcion, Austral University, and the private Technical University of Santa Maria, about 30 per cent of the faculty have been "purged". Of the 22 physics faculty members at the University of Santiago at the time of the coup, two remain; of the 34 chemists, 11 remain; of the original 45 professors in the natural sciences, seven remain.

In Argentina, the situation is even worse. The military government under President General Jorge Rafael Videla looks aside while parapolice and vigilante groups, often in uniform and carrying official identification, openly kidnap and murder citizens. Under the "state of siege", in effect since the junta seized power in March 1976, the crackdown on leftists has broadened into an attack on all independent intellectual activity. "Intellectual subversion" has been defined as a form of terrorism. Freud and Marx have been branded "ideological criminals" and psychiatrists, psychologists, and mental health workers have been all but wiped out. The entire 140-person staff of the Assistance Centers for Children with Learning Problems has been fired.

At a press conference announcing the arrest of 17 professors and the "fugitive status" of another 30 faculty members of the National University of the South, General Acdel Vilas, deputy commander of the Fifth Army Corps, proclaimed that "until we can cleanse the teaching area, and professors are all of Christian thought and ideology, we will not achieve the triumph we seek in our struggle against the revolutionary left."

Abduction, solitary confinement, torture, and murder are common occurrences in Argentina. A half-million people have fled the country since the coup. About 40 per cent of the Argentina Physical Society — some 120 physicists, including the former president of the society and almost the entire governing council — have either been fired from their jobs or have fled the country. Military officers run the universities. Many individuals have simply disappeared; others have been tortured. Many have been murdered in prison. There are secret prison camps at military bases. Few who enter these prisons are ever seen or heard from again.

Uruguay, although the smallest country in South America, was at one time probably the most advanced. The University of Uruguay in Montivideo drew students from all of Latin America. Since the military takeover in 1973, almost all academic departments at the university have been so badly damaged that research, not only in the humanities and physical sciences but also in the technical disciplines, has virtually disappeared. For example, 80 per cent of the Agriculture faculty and 60 per cent of the Engineering faculty has been dismissed since the university was "intervened" shortly after the military takeover. The process involves installation of an official "intervener" as president with the specific task of screening faculty and students to eliminate potential dissidents and examining textbooks for political content.

Statistics show that such "authoritarian" regimes (the term used by the Reagan administration to make more palatable the renewal of military aid to these "friendly" countries) have, in the course of killing and imprisoning untold thousands, all but destroyed science, intellectual life and the educational system. But statistics alone cannot reveal the human dimension of this tragedy. A few sketches will bring home their true meaning.

Elena Sevilla is a young Argentinian physicist who was arrested in her hospital bed five days after giving birth by cesarean section. Although never charged with any crime and ordered freed by a federal judge, she was imprisoned for three years. She is one of the lucky ones because she is alive and is now in the United States with her son.

Other Argentinians include Frederico Eduardo Alvarez Rojas, a prominent physicist, and his wife Hilda Graciela, a computer scientist, who were abducted by armed men in front of their three young children and still remain unaccounted for. Ernesto Silve, a chemistry professor, was arrested and tortured, and according to officials commited suicide in his cell. Gabriela Carabelli, a physics professor, was abducted with her three-year-old daughter;

*Student killed by National Guard during occupation of University of San Salvador — Photo credit ICCHRLA*

*Dr. Fawcett is Professor of Physics at the University of Toronto and Chairman of the Canadian Committee of Concerned Scientists and Scholars.*

her burned body has been found, but not her daughter.

I shall describe just one case in Uruguay. Jose Luis Massera is an illustrious mathematician, now 64, who has been imprisoned since 1965. His wife suffered imprisonment for three years after she asked the Papal Nuncio for help, and their son-in-law was also tortured and imprisoned. Despite Massera's age and offers from distinguished foreign universities, he is at this moment still in Libertad Prison.

Liberty Prison! Libertad is not one of George Orwell's prophetic visions, but, like Dachau in the 1930's, is a concrete achievement of 20th Century man. Details of this institution have emerged from an internal report of the International Committee of the Red Cross published in *Freedom Appeals*, a periodical largely devoted to repression in the Soviet bloc (November-December 1980). According to this document, Libertad holds about a thousand political prisoners and "...all have been tortured, kept in secret places of detention, all of them without exception..." Thirty-seven men from the faculty of the University of Uruguay are known to be incarcerated in this hell-hole, and an unknown number of women in Punta de Rieles, the main prison for females which has never admitted visitors.

What can members of CAUT do to help their beleaguered colleagues in Latin America? The least we can do is protest in a few cases of oppression in the hope that we may improve the conditions of imprisonment for these individuals and perhaps even gain their freedom, thereby providing hope for others. The case of Professor Massera in Uruguay and those of Yuri Orlov and Anatoly Shcharansky in prison in the Soviet Union were described in the *CAUT Bulletin* of May 1980 in connection with a campaign on their behalf organized by the Canadian Committee of Scientists and Scholars (CCSS). Hundreds of Canadians wrote to the ambassadors of Uruguay and the U.S.S.R. asking in the name of humanity for the release of Massera, Orlov and Shcharansky. When the Soviet police seized Viktor Brailovsky and suppressed the Moscow Sunday Scientific Seminar which he directed, over 3000 academics in Canada authorized the CCSS to protest to the Soviet ambassador. A delegation called on the Soviet embassy on March 27, 1981, but found the Uruguayan embassy barred by a guard.

Although we shall perhaps never know how effective our efforts really are, members of the CCSS, and other organizations and individuals, will continue our campaign for freedom for Massera, Orlov and Shcharansky. (Brailovsky's sentence is still pending an appeal) until we are successful. We have no swords with which to help our colleagues, but I pray that our pens may become increasingly mighty. Such actions have saved many careers, and even many lives.

Nobel peace prize winner Adolfo Perez Esquivel will visit Canada in October at the invitation of CCSS. The award of this prize focused an international spotlight on the situation of Argentina, where Sr. Perez Esquivel himself suffered arbitrary arrest, imprisonment and abuse. It also served to illuminate the human rights situation in Latin America as a whole. Sr. Perez Esquivel's visit to universities in Toronto, Sudbury, Ottawa, Montreal and Halifax will provide Canadians with a unique opportunity to begin their education in the causes of the appalling conditions under which the people of Latin America live.

Canadian academics in particular should make it their business to try to understand the process which is strangling a country such as Uruguay. For 70 years this country existed as a stable democracy with regular elections and a well developed system of social security — rather like Canada today! Then came a period of economic recession in the 1950's and 1960's due to a fall in world prices of meat and wool, Uruguay's main exports. This situation was accompanied by rapid inflation, resulting in labour unrest with violence from vigilante groups responding to urban guerrilla movements. Parliament was dissolved in 1973. Trade unions and political parties were banned and military officers took over local government, state corporations, the universities and other major institutions.

Since then, the retrogression to a National Security State has been rapid and inexorable. All forms of expression are controlled and repressed by a politico-military apparatus which absorbs 50 per cent of the national budget. Approximately half a million Uruguayans have gone into exile — almost one in every five citizens, and a much higher proportion among scientists and other academics and professionals. The number of political prisoners composes a larger fraction of the total population than in almost any other country in the world.

The economic situation has made life intolerable for most people. Between 1978 and 1981, the foreign debt doubled, inflation was 400 per cent and real wages fell by 25 per cent. The situation has resulted in further massive emigration of technicians and professionals. Production remains stagnant, but takeover of industry, banking and commerce by multinational corporations is accelerating, so there is now little need for Uruguayan technicians and professionals.

Canadians must be on guard against the quick fix of foreign aid, which usually results simply in further expansion of state corporations, agribusiness and multinational takeovers. Even such help as the loan of $32 million offered by the Inter-American Development Bank to the University of Uruguay in September 1980 is insidious, since it will be used to bring in outside consultants and foreign scientists to replace the Uruguayan faculty now in prison or driven into exile.

The human rights situation is even worse in Central American countries where foreign domination has long served to repress local populations. For example, Guatemala has remained backward and underdeveloped because of domination by foreign agribusiness interests over many years. Massive military repression results in the torture and murder of literally hundreds of men, women and children every week. The struggle for human rights in such a country is an integral part of the fight for national self-determination and development. But, if a large percentage of the population is illiterate, how far can one go in the implementation of traditional "liberal" or civic rights?

If people do not have the freedom to organize unions, community groups, or political movements, can one expect that the traditional and worsening inequities of economic and political power will be ameliorated? If basic needs in health, education, housing, employment are not assured, can one expect that assurances of the right to vote, or to publish one's opinion, will have any substantial reality? Therefore, when we speak of the struggle for human rights, we are not talking only of torture, repression of freedom of speech, or arbitrary arrest — significant as all these are — but also of the broader struggle for social, economic and political participation by all the people in the development of their country and improvement of their lot.

When national self-determination is finally achieved, as in the case of Nicaragua in 1979, at the cost of 40,000 dead (largely due to indiscriminate bombing by dictator Somoza's air force), the policy of the Reagan administration is to deny emergency aid and loans for development and to institute a virtual trade blockade. Canadians must be prepared in this and other cases to have their government adopt a foreign policy sufficiently different from that of the U.S.A. to risk retaliation. We have known since January 1981 that retaliation is no idle threat.

The Church of Latin America in recent years has been in the foretront of the struggle for freedom and the defence of human rights. The record of the Canadian churches is excellent in this respect, and the Inter-Church Committee on Human Rights in Latin America (ICCHRLA) is doing tremendous work. The ICCHRLA Newsletter (published from suite 401, 40 St. Clair Avenue W., Toronto, M4T 1M9) is one of the best sources of information about the human rights situation in Latin America.

The moral imperative that inspires the Church was expressed by Oscar Amulfo Romero Galdamez, Archbishop of San Salvador on March 23, 1980: "The Church which defends the rights of God, the law of God, the human dignity of each person, cannot remain silent before such an abomination... In the name of God, then, and in the name of this suffering people whose laments are heard more loudly every day in heaven, I ask you, I beg you, I order you in the name of God: STOP THE REPRESSION." The Archbishop was telling Salvadorean soldiers to obey the law of God and disobey the officers who ordered them to kill their brothers. The next day he was assassinated in his own pulpit. Implicated in this assassination are two leaders of a paramilitary group allied to the ruling military junta: General Alberto Medrano and Major Robert D'Abuisson.

Archbishop Romer was also speaking to us. Perhaps we should interpret Archbishop Romer's words as a command to do everything we can to understand what is happening in Latin America. We should do all in our power to help our neighbours to escape from the forces which are driving them inexorably towards disaster — a disaster not only for them but also for the rest of us who inhabit this global village.


# CONCORDIA UNIVERSITY

## Appointment of a Vice-Rector, Academic

Concordia University will appoint a Vice-Rector, Academic responsible for the Faculty of Arts and Science to take office on June 1, 1982. (There is another Vice-Rector, Academic for the Faculties of Commerce and Administration, Engineering and Computer Science, and Fine Arts.) The Vice-Rector is also responsible for certain administrative functions. The appointment is for a five-year term, and is renewable. The present Vice-Rector is eligible for reappointment.

Ability to participate effectively in meetings in French, notably with government and other universities, is a requirement of the position.

Applications or nominations, with biographical information, should be sent by October 15, 1981 to the Chairman of the Advisory Search Committee: Dr. John W. O'Brien, Rector and Vice-Chancellor, Concordia University, 1455 de Maisonneuve Blvd. W., Montreal, Que. H3G 1M8.

## Appointment of the Dean of Engineering and Computer Science

Concordia University will appoint a Dean of the Faculty of Engineering and Computer Science to take office on June 1, 1982. The appointment is for a five-year term, and is renewable. The present Dean is eligible for reappointment.

Ability to participate effectively in meetings in French, notably with government and other universities, is a requirement of the position.

Applications or nominations, with biographical information, should be sent by October 15, 1981 to the Chairman of the Advisory Search Committee: Dr. John S. Daniel, Vice-Rector, Academic, Concordia University, 1455 de Maisonneuve Blvd. W., Montreal, Que. H3G 1M8.

## Appointment of the Dean of Division II Faculty of Arts and Science

Concordia University will appoint a Dean of Division II of the Faculty of Arts and Science to take office on June 1, 1982. (Division II corresponds generally to a grouping of Social Science departments.) The appointment is for a five-year term, and is renewable. The present Dean is eligible for reappointment.

Ability to participate effectively in meetings in French, notably with government and other universities, is a requirement of the position.

Applications or nominations, with biographical information, should be sent by October 15, 1981 to the Chairman of the Advisory Search Committee: Rev. Dr. Russell Breen, Vice-Rector, Academic, Concordia University, 7141 Sherbrooke St. W., Montreal, Que. H4B 1R6.

## Appointment of the Dean of Division III Faculty of Arts and Science

Concordia University will appoint a Dean of Division III of the Faculty of Arts and Science to take office on June 1, 1982. (Division III corresponds generally to a grouping of Natural Science departments.) The appointment is for a five-year term, and is renewable. The present Dean is eligible for reappointment.

Ability to participate effectively in meetings in French, notably with government and other universities, is a requirement of the position.

Applications or nominations, with biographical information, should be sent by October 15, 1981 to the Chairman of the Advisory Search Committee: Rev. Dr. Russell Breen, Vice-Rector, Academic, Concordia University, 7141 Sherbrooke St. W., Montreal, Que. H4B 1R6.

*Rationale is updated version of laissez-faire economics, but critics say aim is to neutralize the universities*

# *New university law decreed in Chile*

by John Walsh

Chile's military government is carrying out a radical restructuring of higher education. A new university law narrowly emphasizes professional preparation in the universities and conforms to the market-oriented economic theories now espoused by the government in Chile.

The new law banishes degree-granting programs in many disciplines, including most of the social sciences and, apparently, some natural science fields. Responsibility for teaching and research in disciplines excluded from the university will be shifted to the private sector on the assumption that new institutions can be created if a demand exists.

Critics of the new law argue that its underlying purpose is to end the university's role as a source of social criticism and political opposition. They say that the law fits into a broader government policy of refashioning Chilean institutions according to political, economic, and moral criteria approved by the regime.

Because the university law was promulgated in early January at the beginning of the summer vacation, details of the restructuring will not be known until after the universities have resumed on 16 March and new charters have been approved by the government.

The law makes clear, however, that degree programs and graduate training are to be offered in only a dozen fields [1] in universities supported by the government, a reduction of about half.

Hardest hit are the social sciences and humanities, while faculties providing traditional professional training have been retained. In technical fields there are indications that engineering and applied sciences will be favored over basic sciences.

In implementing the new law, the government is expected to concentrate first on the University of Chile, [2] which is the largest and politically and culturally the most important of Chilean universities.

As a result of the law a new wave of dismissals of faculty and departures of students seems to have begun. The 1973 military coup which ousted the government of President Salvador Allende was followed by a wholesale dismissal of university faculty and expulsion of students. Cases of disappearance, torture, and imprisonment documented by human rights organizations in the period included many academics.

Since the coup, the government of President Augusto Pinochet has exercised direct control of the universities through *rectores delegados* named by the president, who, in turn, hold power to appoint deans and faculty members.

Government strategy in the universities has been guided by principles being applied to Chilean institutions generally. Faced with a prostrate economy and high rates of inflation and unemployment, the government sought to follow policies associated with the so-called Chicago school of economics. The leading current exponent of free-market theories, Milton Friedman, provided informal advice to the Chilean government in 1975; and policies are now directed by a group of Friedmanite technocrats known in Chile as the "Chicago boys."

The government has decreed new financial policies aimed at making the universities largely self-financing. Tuition has been sharply increased and future tuition levels are likely to vary from faculty to faculty according to the income students can expect to earn as graduates.

Tom McDonald

With deep cuts in government spending a major element in its economic plan, the government took the line that universities must share these cuts. At the same time, the university was condemned as an inefficient and wasteful organization. Therefore, a major overhaul was needed, for example, so that it would not go on turning out graduates for whom there were no jobs.

As for the traditional Latin American view that the university should be an autonomous institution open to the discussion of all political views, the government's own concept of the university is made clear in the new law's section defining autonomy and academic freedom.

Under the law, the university is not permitted to "foment actions or conduct" incompatible with public order or to "propagate directly or indirectly" partisan political tendencies. Political instruction is excluded from the university beyond what is "understood as objective information."

Despite government controls on the universities, political activism has revived. There was open opposition by students to a new national constitution pushed through by the government last year and protests over arrests and dismissals of students and faculty have occurred.

Criticism of the new law seems to focus less on the changes in structure it makes than on its effects on the place of the university in Chilean life. Typical of the views of many Chilean scientists outside Chile are those of Claudio Teitleboim, a theoretical physicist at the University of Texas, Austin. Teitleboim has worked in the United States since 1969 when he came here to complete his studies.

"It is extremely important to put the law in broader context," he says. "One can fall into the trap of discussing details." In respect to the universities, he says "It is clear that the law tries to put an end to what is considered a risk to the state."

"The university had a tradition of free and creative thinking. All of that has a connotation of political subversion to the people in power. That is why all humanistic programs are most directly under attack. That is why pure science programs are being transferred back to professional schools. Now the university is seen as forming experts in narrow fields."

Because of the reduction in size of the university and the increase in cost to students, he says the university law "goes to the heart of Chilean life, especially for the middle class. One of the traditions of the middle class family was to have at least one child in the university. It was possible because the university was free. The new law will be seen as closing one more road open to the middle class. The policy is to increase the gap between the rich and the poor."

On the government side, spokesmen explaining the new law have said that the intention is to restore the "normal functioning" of the university that between 1967 and 1973 became hopelessly politicized.

The 1960's saw a rapid growth of graduate education, particularly in the natural sciences and social sciences, and of research in Chile, much of it supported by international organizations and U.S. government and private foundations. University enrollment was swelled by students from lower income families who had been virtually excluded earlier.

In 1967 Chilean universities underwent major reforms similar to those produced by student pressures in Europe and the United States. Aimed principally at democratizing the university the reforms provided, for example, that university rectors be elected by vote of all professors, staff, and students. The new decision-making machinery was clumsy and contributed to the confusion as patisan political activity increased.

After Allende won the presidency in 1970 a contest for dominance in the national universities developed between the left and the Christian Democrats. In the Catholic Universities of Santiago and Valparaiso the right also had solid support. Tactics favored in the past by students had been strikes and demonstrations. Opponents of Allende began to charge that the universities had become an incubator of revolutionaries. The military junta which staged the coup in 1973 argued that the government was planning to install a Marxist dictatorship, thus, at least by implication, to justify the harsh measures used.

During the Allende period, faculties and disciplines subdivided on political lines into smaller units. When the coup occurred, therefore, it was easy for the government to take punitive action against particular institutes. Precise figures are unavailable, but estimates published in Chile in 1980 put the number of persons expelled from the university after the 1973 coup at 18,000 including 30 to 35 per cent of faculty in all Chilean universities. Dismissals of faculty have continued sporadically, in many cases attributed by the government to reductions in budget.

Social science disciplines have been regarded by the government as a seedbed for troublesome political views and dealt with severely. By the late 1970's, most serious social science research was being done in private research centers outside the universities. Almost all depend on funding by international organizations or U.S. private foundations.

Some of the centers provide seminars for university students, but virtually no organized graduate study in the social sciences is available today. The new university law permits the creation of new higher education institutions including new universities to teach disciplines no longer in the curriculum of the national university system. It is possible that some of the existing private centers will be able to acquire academic status under the wing of the Academy and Christian Humanism which is supported by the Catholic Church and may develop into an academic umbrella organization.

Industry and financial institutions have expressed interest in establishing new educational institutions to train employees in relevant fields. Other groups are expected to have more difficulty in raising funds and obtaining the required permission from the government.

Research in the natural sciences has con-

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# University of Ottawa establishes Human Rights Institute

The University of Ottawa has established an Institute for Human Rights, the first of its kind in Canada. It is to be set up next fall at the Faculty of Law.

The Institute's first director will be Professor Walter Tarnopolsky, a Common Law professor in the Faculty of Law. A former Civil Law dean, Gérald A. Beaudoin has been appointed associate director.

Originally conceived by the then Ambassador to Unesco, Yvon Beaulne, the Institute came to fruition mainly through the efforts of Professor Tarnopolsky.

Professor Tarnopolsky is the Canadian member of the U.N. Human Rights Committee and author of a book on the *Canadian Bill of Rights*. He has attended, in a private and professional capacity, several international meetings on human rights including two recent Unesco meetings: the International Congress on the Teaching of Human Rights in Vienna 1978 and a meeting of experts held in Paris, June 1979 for the purpose of elaborating a plan for the development of human rights teaching.

Following these meetings, Unesco adopted a seven-year plan for the development of human rights teaching, hopefully integrating national programmes with those at regional and world levels.

"The Institute was established in an effort to assist in this world-wide project and to respond to Canada's commitment to the advancement and teaching of human rights," says Professor Tarnopolsky.

"Given the current debate and discussion in our country, the time is right to proceed with the formation of an independent, academically-based organization which will concern itself with human rights education."

The Institute's three principal activities will be instruction, research and promotion. Instructional activities, in cooperation with other faculties, will include courses in domestic and international perspectives; specialized summer courses for such professional groups as lawyers, judges and police officers as well as for doctors, school teachers, union officials, business executives, members of the military and journalists; finally, seminars and workshops for preparing instructional material and improving teaching techniques.

Moreover, the Institute will provide facilities for scholars and students engaged in human rights research, develop a scholar-in-residence programme and publish a periodical journal. It hopes to work also on research projects for federal and provincial governments, and for international organizations such as the United Nations, the International Labor Organization and Unesco.

Should time and resources permit it, the Institute will later consider forms of promotional activities such as the publication of popular materials, convening of conferences and special briefing materials on decisions and activities of legislative bodies and tribunals.

## New law in Chile...

tinued at a reduced level because of funding restrictions and the departure of many of the ablest Chilean scientists. University science education, which was among the best in Latin America, is said to have declined in quality because of shortages of equipment and supplies as well as of faculty. The consensus among Chilean scientists abroad and American scientists with experience in Chile is that a key factor is the loss of much of the generation of Chilean scientists trained in the 1960's and early 1970's who have gone abroad for political or professional reasons.

University research receives some university funds and the government continues to seek involvement in international scientific projects through its national commission on scientific and technological investigations (CONICYT) which resembles the U.S. National Science Foundation, but is now operating on a sharply reduced budget.

Official attitudes toward research, particularly basic research, are cool at best. One widely circulated remark by an official is that research is not really necessary since technology can be bought abroad.

Prospects for change in such attitudes do not seem bright. The late 1960's and early 1970's marked a watershed in Chilean political life. The military had a record of staying out of politics — unusual in Latin America — which it abandoned in 1973. The regime has left no doubt that it is not simply playing a caretaker role until regular civilian rule can be restored.

The proclamation on 11 March by General Pinochet that Chile had entered a "constitutional transition" phase on the way to promised democratic elections in 1989 affirmed that the junta intends to carry through its plan of reconstruction.

In moving to neutralize the university and use it in its effort to remold Chilean society, the government is not alone in Latin America today. Military governments in Argentina and Uruguay, for example, have taken a similar course. What is unusual in Chile is the comprehensiveness of the grand design and the apparent strength of the determination to carry it through.

1. Law, architecture, biochemistry, dentistry, agronomy, civil engineering, business and economic sciences, forestry, medicine, veterinary medicine, psychology and pharmacy.
2. Chile has eight universities including Catholic universities in Santiago and Valparaiso which have ties to the church but are funded primarily by the national government. The University of Chile with its main campus in Santiago is the largest university with about a third of all students. Total university enrollment this year is about 135,000, down somewhat from the time of the coup.

*Reprinted with permission from Science magazine.*


**BIOLOGISTE MOLÉCULAIRE**

Biologiste moléculaire ayant un intérêt marqué pour la génétique microbienne. Apte à assumer la responsabilité d'une recherche, seul et en collaboration, préférablement en microbiologie appliquée (enzymes de restriction et ligase, synthèse chimique et enzymatique de gènes, «sequencing», purification des polypeptides).

**BIOCHIMISTE/MICROBIOLOGISTE**

Biochimiste spécialisé dans l'application industrielle des enzymes microbiennes. Apte à assumer la responsabilité d'une recherche, seul et en collaboration, préférablement en microbiologie appliquée (bioréacteurs continue pour les enzymes et les cellules immobilisées).

De plus, être disposé à donner un enseignement avancé et à assurer l'encadrement d'étudiants gradués. Une participation aux activités de services communautaires et de production, de même qu'aux tâches administratives, peut s'ajouter aux responsabilités précitées.

Exigences. Avoir obtenu un doctorat d'une université reconnue et être actuellement actif en recherche. La préférence sera accordée aux candidats ayant fait un stage post-doctoral et ayant participé à l'enseignement universitaire.

Traitement: Selon l'expérience et l'échelle de salaire en vigueur à l'Institut Armand-Frappier (réseau de l'Université du Québec) ($28,179 - $55,67D / année).

Veuillez adresser votre curriculum vitae, la liste de vos publications et les noms de trois personnes pouvant fournir des références, avant le **31 octobre 1981**, à:

**MOLECULAR BIOLOGIST**

Applications are invited for a professor position presently available. The successfull applicant will have a Ph.D. and experience in microbial genetics. Duties will include the responsibility of conducting independant and collaborative research in applied microbiology (restriction enzymes, chemical and enzymatic synthesis of genes, sequencing, polypeptides purification) and post graduate teaching.

**BIOCHEMIST / MICROBIOLOGIST**

Applications are invited for a professor position presently available. The successfull applicant will have a Ph.D. and experience in industrial application of microbial enzymes. Duties will include the responsibility of conducting independent and collaborative research in applied microbiology (bioreactors for immobilized cells and enzymes) and post graduate teaching.

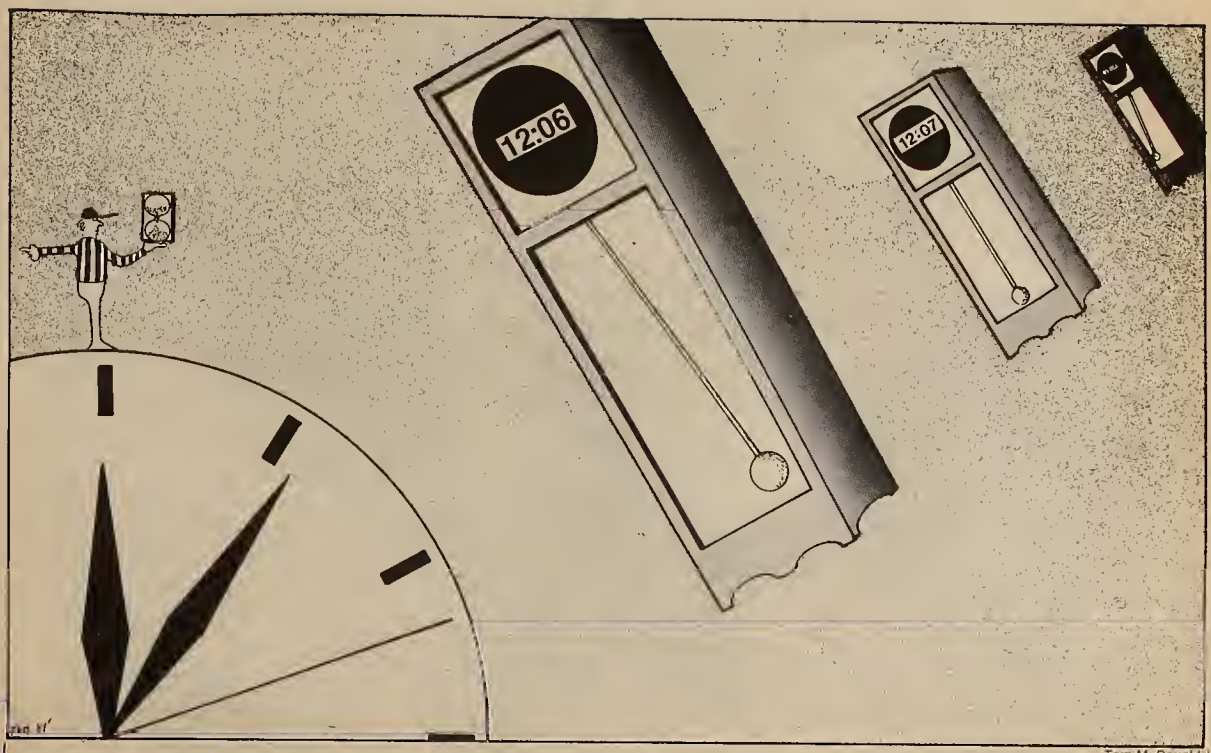
Preference will be given to candidates with post doctoral training and having held a teaching assignment at the university level. Knowledge of French is an asset.

Salary is commensurate with experience and training ($28,179 - $55,67D / year).

Applications will be received until the position is filled, if possible by **October 31, 1981.** Applicants are invited to submit a curriculum vitae, statement of research interest, and the names and addresses of three referees to:

**Monsieur Vincent Portelance, Ph. D.**
**Directeur**
**Centre de recherche en bactériologie**
**Institut Armand-Frappier**
**531, boulevard des Prairies**
**Case postale 100, Laval-des-Rapides**
**Laval (Québec) Canada H7N 4Z3**

Université du Québec
Institut Armand-Frappier




Tom McDonald

# *Of time, space and digital clocks*

**by Peter Donnelly**

Move over, Einstein! I have just discovered a new dimension of the time-space relationship. While it is not earth-shaking, and most unlikely to result in my receipt of next year's Nobel Prize for Physics, it certainly shook me. I have just realized that *time is space. Ergo,* digital clocks make me late.

Let me explain. Like most *Playboy* generation North American males I surround myself with the toys that are the trappings of modern technology. I have a miniature calculator in my office that also tells me the time, day and date, functions as a stop watch and lap timer, plays a series of tones as I balance my cheque book, and wakes me from my afternoon nap to the electronic notes of "Für Elise" and "Tarantella Napoletana."

I also have a digital clock radio by my bedside and it was while I was lying awake one night, mesmerized by the numbers flipping over, the minutes of my life skipping away, that I realized that this digital duo were turning me into a tardy person.

It occurred to me that the numbers have no meaning. What is 12:47? What is 4:33? They are numbers that have no relationship whatsoever to time in my conception. Because time is space, and, until the appearance of digital clocks and watches, it always has been.

For early man the passage of time was represented by the changing seasons, the migration of animals and birds, the growth of crops, and the movement of the sun across the sky. The latter phenomenon became the basis for the first formal means of measuring time, the gnomon. The gnomon, which was later refined into the sundial, was a stick planted in the ground — the length and direction of the shadow determined the time of day.

Other early means of measuring time included the clepsydrae or water clocks, hour glasses, and the burning of knotted ropes and incense tapers in the Far East. In every case the passage of time was represented by movement through space — a moving shadow, the passage of water from one vessel to another, the changing level of oil or height of a candle, or the movement of a flame along a rope or incense taper.

European monks (Benedictine) were apparently the first people to live by the clock. They divided the day into seven devotional periods, canonical hours, each marked by the ringing of the monastery bells. But their means of determining time were troublesome. Water clocks were prone to freezing, clouds and darkness rendered the sundial useless, and hourglasses, lamp and candle clocks needed constant tending. The mechanical clock was an invention whose time had come, and that time came in the thirteenth century.

Again, the passage of time was represented by movement through space — the movement of the hands of a clock through the 360 degrees of a circle. It is no accident that both hours and degrees are divided into minutes and seconds because time and space are analogous.

Nowhere is this analogy more apparent than in Hopi culture where no distinction is made between time and space — long ago and far away are the same. And child psychologists have determined that the concepts of time and space appear to develop together in our early years, a parallelism that we retain in our adult lives. Our concern with travel, our love of punctuality, and our particular style of sports all emphasize this parallel.

Distance becomes translated into time in so much of our conversation about travel:

"How far is it to the Chateau Laurier?"

"Are you walking or driving?"

"Walking?"

"Oh, about twenty minutes."

The question concerns distance, the response is given in time, and we accept it as a valid answer. We invariably think in terms of travel time rather than distance whether we are driving from Toronto to Tampa Bay or flying from Vancouver to London. And I have never met a commuter who told me how far it was from home to work — travel time is the basis for comparison.

Time and space are key elements in all of our most popular sports. Football is governed by the chain and the clock, and even the North American Soccer League has felt constrained to introduce a semi-official time clock. But the ubiquitous jogger best expresses the parallelism of time and space by employing the concepts interchangeably ("I was out for 45 minutes"/"I ran five miles"), or by combining the concepts in constant references to pace.

Punctuality must rank very highly in the hierarchy of North American virtues, perhaps even next to cleanliness. Promptness, keeping to a schedule, being *on time* — all ways of indicating that a person is in a certain space at a certain time. And therein lies my problem.

When I look at my old-fashioned, wind-up watch I see time as space. If my watch tells me that it is ten minutes to eleven and I have a class to teach in another building at eleven o'clock, the length of the arc on my watch from ten to twelve becomes a model of the distance from my office to the classroom. The time it takes for the minute hand to move from ten to twelve is the time that it will take me to walk to my classroom. I keep pace with the minute hand and I know that I have to leave now in order to be on time.

When I look at my digital calculator clock I see a number — 10:50. What is 10:50? It does not trigger any relationship between time and space in my mind, and... I'm late for class again!

As I gradually began to realize what was happening I became more and more enraged about all digital clocks and watches. They were destroying my sense of time. But I could not understand why sports clocks were not having the same effect. Although digital clocks are widely used they have the effect of enhancing our sense of time and our excitement near the end of a close game.

The solution, like all the best solutions, was only too obvious. Sports clocks work backwards! They count down to zero at a constant rate, thereby giving us a very clear idea of how much time is left.

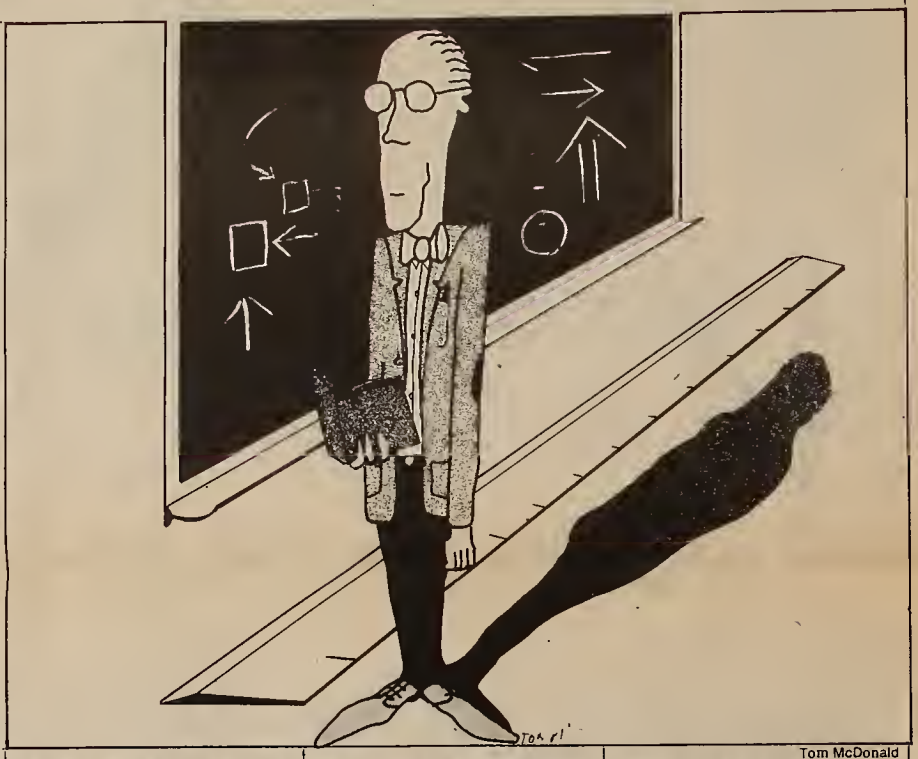
Now, if only I could get my calculator clock to work backwards. Maybe if I turn the batteries around....

*Professor Donnelly is with the School of Physical Education and Athletics at McMaster University.*

*Can a performance-based approach be adapted to higher education?*

# *Improving university teaching*

by Robert R. Newton



Tom McDonald

Efforts to improve university teaching are hindered by the same lack of clear purposes and objectives which plague the educational enterprise generally. Most educators are not very good at defining with precision what they wish to accomplish. Many would argue that 'mindlessness', the failure or refusal to think seriously about educational purpose, continues to plague education. Behaviorists claim to have found the answer — translation of educational goals at every level of administration and teaching into precise performance objectives. Other educators protest: the behavioral objective is too narrow an instrument to incorporate all the goals of education, including some of the more important.

It is easy and also quite accurate to propose that a large part of the failure to promote good teaching is based on the failure to define more specifically what good teaching is. And a logical corollary emerges: how can you promote or encourage what you cannot define?

Further complication is added by the independent role of the teacher. Though an individual teacher may be subject to administrative direction or collaborative planning with colleagues, most of what teachers do (on any level of education) is almost totally under their control and outside the view of others. Once a faculty member closes the door to the classroom, he/she is almost totally autonomous and unobserved. The rise in student evaluation of teaching in recent years has changed this somewhat by providing the client's (student's) perception of what is happening behind the closed door. However, it remains true to say that university teachers are generally unobserved in their teaching performance except for occasional, atypical moments.

This has three effects which hinder the improvement of teaching:

- it virtually eliminates the context in which teaching performance might be analyzed more systematically to assist teachers;
- it eliminates accountability to colleagues or administration for teaching effectiveness (except through student evaluation);
- it fails to provide an incentive system to encourage faculty to improve their teaching. This last element seems especially important since improved teaching is ultimately self-improvement; if the system in which the teacher works does not have mechanisms for defining and rewarding good teaching, then the faculty member is likely to turn his/her attention to those areas of faculty responsibility in which more concrete measures of performance are present, e.g., research/publication.

**Promoting growth by defining outcomes**

The concern to improve performance in the teaching role does not lack parallels in other organizational contexts. In any growing organization intent on change and adaptation, there is an interest in improving the performance of personnel.

There are a variety of approaches to improving performance in organizations. One widely used approach concentrates on formulating more precise definitions of outcomes. It can be viewed as a modern version of the systematic approach to management proposed by Frederick Taylor at the turn of the century under the name of scientific management.

Taylor's aim was to discover the most efficient way to perform any job by careful analysis of the role and the top performers in the job. From this analysis emerged a precise job description and a series of training procedures and supervisory mechanisms to inculcate and monitor the 'one best way' of performing the task under scrutiny. Taylor's successes in increasing the productivity of workers in a variety of industries led to the widespread application of his ideas.

The modern version of scientific management has turned from prescription of what the employee should do to prescribing what outcomes the employee should accomplish. The shift has been from managing by role description to managing by results. The popularizers of this new form of systematic management are the proponents of management by objectives and other managerial systems which attempt to administer organizations by defining with precision the performance expected.

Though a method of management, this approach also includes a substantially different approach to motivating personnel. There is an assumption that the clear definition of an attainable objective will have a strong motivating effect on the person, drawing him/her towards its attainment. It is a reflection of the old scholastic maxim: whatever acts, acts toward some goal. It parallels the insight implicit in the concept of achievement motivation: a reasonable goal will stretch the person towards its attainment and simultaneously create growth and improvement. A clearly defined goal has a motivating power which is dramatically more effective than any amount of generalized exhortation 'to do a good job.'

The typical educator who has read this far is now beginning to feel uneasy. The general fear that business procedures will distort the more lofty purposes of education, that educational goals and roles cannot be translated into performance objectives, that good teaching cannot be described in terms of results — all come into play to create first disquietude and then rejection of further consideration of a performance-based approach to improving teaching.

Yet it can be argued that one of the primary obstacles to the improvement of teaching is the failure to define what good teaching is — not only the basic components of good teaching, but also the basis for differentiating levels of teaching performance. As a result, teachers are robbed of a powerful motivating force: clearly defined objectives which describe the substance of the performance expected and provide benchmarks by which the individual or others can estimate the quality of performance. Each individual is left to determine on his/her own not only what defines better teaching performance but also how to measure it. A vaguely defined objective will produce vague outcomes; a set of clearly defined goals for teaching performance will draw teachers towards their achievement.

At the same time, teachers may well be correct in arguing that typical behavioral objectives do not fit the realities of teaching. An approach suitable for a sales organization or a production unit where targets are tangible and easily measured is not likely to be suitable for the teaching professlon where outcomes can neither be so clearly defined nor so precisely calculated. It has been a mistake to attempt to force education into a model which may work in other organizations but is unworkable for defining good teaching in university classrooms. It has been a mistake that has meant performance-based development schemes have generally been rejected as inappropriate for the improvement of teaching performance. What is needed is an adaptation of the concept of performance standards to the special circumstances and demands of teaching — the creation of a 'performance middle ground' for a human service profession whose technology is less scientific or rigorous, whose goals are less defined, and whose measures of success are less tangible and precise.

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*Dr. Newton is Academic Vice-President and Dean of Faculties at Boston College in Massachusetts.*

*The proposals contained in Dr. Newton's article are consistent with those presented in The Teaching Dossier, a report of the CAUT Teaching Effectiveness Committee which was published last year as a supplement to the Bulletin. Copies of The Teaching Dossier at 50¢ each are available at the CAUT central office.*

A performance-based system for the improvement of teaching must have a number of characteristics. It must not attempt to force teaching into categories which are unsuited for the less precise goals of education and less precise nature of teaching. At the same time, it must be specific enough to define in concrete terms what good teaching performance is, its components and levels; in so doing, it should generate a set of clearly attainable and worthwhile objectives.

**Designing a performance-based teacher improvement model**

Three steps are involved in designing a performance-based teaching improvement model. *First*, all activities which are seen as contributing to the teaching mission of the university must be identified. For example, good teachers are expected to teach courses which produce satisfied students; implicit in this statement are assumptions about what students are looking for: teachers with broad knowledge of the subject, teachers who encourage participation, teachers who stimulate interest in the subject, teachers who have organized the course well, teachers who have well defined and fair grading practices, etc. The teacher/course evaluation form currently in use in a particular university can be seen as incorporating a set of both process and content objectives, as defined by whoever composed the form.

There are numerous other ways in which teachers contribute to the teaching function of the university, many of which are often overlooked in evaluating teaching. Teachers who develop new courses with regularity, teachers who work with unusually large numbers of students, teachers who simultaneously teach a wide variety of courses — all are seen as making special contributions to teaching. Faculty members with particular expertise who are frequently called upon to lecture to other classes in their area of specialty, those who develop significant materials to improve instruction in their classes, teachers whose courses are in continuous revision to render them more up-to-date — reflect in a special way those characteristics which mark good teaching.

Obviously, there are numerous other components of good teaching — both universally recognized or particularly prized on a given campus. However good teaching is defined, the first step in devising a system is to identify the components of teaching as they are accepted (implicitly or explicitly) and promoted on campus.

The *second* step in the process is the incorporation of these elements into a coherent set of STANDARDS FOR TEACHING. The following schema suggests how such a system might be developed.

1. EXTENT OF TEACHING RESPONSIBILITIES
   - regular teaching load (however defined in a university)
     - very high student evaluations
     - high student evaluations
     - low student evaluations
     - very low student evaluations
   - unusually large number of students in classes
   - significant number of directed study, internships, special students
   - regular additional meetings with groups of students outside scheduled classes
   - additional instructional time spent with individual students outside of scheduled classes
2. IMPROVEMENT OF PERSONAL TEACHING PERFORMANCE
   - development of significant instructional materials for personal classroom use
   - frequent use of outside resources for the enrichment of classroom instruction
   - development of new pedagogical approaches to instruction, evaluation, etc.
   - significant revision of existing courses
   - peer or administrative review of classroom teaching performance
   - peer review of course content and organization
   - participation in conferences, workshops, etc. focused directly on the improvement of teaching
3. IMPROVEMENT OF OVERALL FACULTY TEACHING
   - significant presentations to other classes
   - assistance to other faculty in the development of their courses or classroom performance
   - presentations to other faculty on teaching techniques
   - research aimed at the improvement of classroom teaching (personal or more general)
   - membership on program/course development committees
   - development of new courses to add variety to program/departmental offerings

The above list, though general and incomplete, provides a model which can be adapted to a particular faculty's own definition of good teaching. It contains numerous assumptions: that teachers should produce a positive reaction in students, that regular revision of courses is important, that peer assistance in classroom teaching is to be encouraged, that the main forms of additional involvement with students are praiseworthy, etc. In a sense, every item incorporated includes an assumption about the nature of effective teaching.

The aim of such a schema is to state directly how faculty contribute to the good teaching at their institution. It provides a basis for communicating to faculty, old and new, what good teaching is; the system also establishes a set of norms against which faculty can measure their performance. By enumerating the elements of teaching performance, a comprehensive set of specific outcomes has been generated and articulated.

The *third* and final step in the development of an outcomes-focused system of teacher improvement is its institutionalization in the normal operating procedures of the university. A general list of ways in which faculty contribute to teaching is a useless exercise unless it is further implicated in the reward system and resource allocation decisions of the university.

An outcomes-based model, once developed, provides a set of guidelines for a variety of policies and procedures. For example, selection of faculty could be aided (in so far as teaching skill or promise is a factor) by evaluating candidates on the basis of their achievement or potential in areas which you have defined as the elements of good teaching. Similarly, candidates under consideration can be presented with a relatively complete description of what will be expected of them, should they be selected.

The system is easily translated into a format for faculty self-evaluation or administrative evaluation of teaching. The approach is a positive one, focusing on the variety of ways in which contributions to teaching are possible. The very existence of a clear description of components of good teaching performance presents teachers with a set of targets towards which their behavior can be directed. Similarly, the listing can be utilized by the faculty member in proposing him/herself for tenure or promotion, pointing to accomplishments in the various areas which publicly define good teaching. Those charged with tenure/promotion decisions can also use the elements identified as the basis for their judgment.

The organization and direction of faculty development programs can be derived from the definition of outcomes in the system. Presentations/workshops/opportunities for external review of teaching effectiveness become part of a coherent effort of faculty and administration to improve systematically teaching effectiveness rather than isolated events sprinkled throughout the faculty calendar.

The system should also reduce the number of faculty/administrative conflicts over the evaluation of teaching and promotion/tenure decisions. By providing a more objective 'middle ground' with tangible criteria, the faculty member can more objectively gauge whether an application is appropriate or inappropriate. Similarly, those charged with such decisions are provided with a set of criteria which, while they do not totally eliminate subjectivity, reduce it dramatically; the focus is on specific contributions rather than on personal opinions or subjective estimates of performance by either the faculty member or evaluator.

A fundamental assumption of this paper has been that faculty are interested in improving their teaching and contributing more broadly to the teaching mission of their university. An outcomes-focused system responds to this professional need and interest by providing a framework which not only gives specific meaning to the concept of effective teaching, but also releases a set of motivational forces to stimulate faculty involvement. Though the approach requires adaptation and 'reinvention' in each institution, it is an approach to improving teaching which deserves serious investigation.


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# BOOKS.LIVRES

## The rise and fall of the Progressive Conservative government

**by Michael D. Behiels**

**Points of Departure.** Dalton Camp. Toronto: Deneau & Greenberg, 1979.
**Discipline of Power. The Conservative Interlude and the Liberal Restoration.** Jeffrey Simpson. Toronto: Personal Library, 1980.

Canadian politics has, depending upon one's perspective, scaled new heights of the sublime and ridiculous or descended to the anachronistic and corrosive partisanship so characteristic of the Diefenbaker-Pearson years. What with the stage-managed rise and "kamikaze" style defeat of the Progressive Conservative government, the over-blown "war-like" rhetoric surrounding the energy and constitutional debates and Joe Clark's valiant struggle to remain at the helm of his party, the fifth estate plainly has been ecstatic. Only those fortunate enough to be able to leave the country for anywhere except the United Kingdom have been spared the deluge of reporting, good, bad and indifferent, on the Canadian political scene.

The public, inflicted by all these "media" events, or circus spectacles if you prefer, can be likened to a three-masted schooner after encountering a fierce North Atlantic gale — rudderless, sails torn and tattered and its crew numbed and disheartened. Like the schooner and its crew who struggle to survive the wrath of the gods, good or evil, so too, the Canadian public and the ship of state wrestle to transcend the inanities and personal ambitions or tribulations of its political leaders, federal and provincial.

Two recent books attempt to bring order to the chaos by charting the course of recent Canadian politics. Both books complement one another admirably.

Dalton Camp's *Points of Departure* deals with the 1979 election campaign ostensibly from the point of view of an "objective" commentator. Camp, as usual, writes from the gut and his stream-of-raised-consciousness account is full of witty, irreverent, and sometimes devastating, intuitive insights.

Jeffrey Simpson's *Discipline of Power. The Conservative Interlude and the Liberal Restoration* is undoubtedly the best work of political journalism to emerge in a long time. Simpson's approach is empirical and analytic. His convincing revelations and insights emerge out of a careful and coherent marshalling of, what is for Joe Clark and the Conservative Party and Government, highly incriminating evidence. No one, not even the most partisan Tory, can read *Discipline of Power* and not agree that Joe Clark and his inner circle have only themselves to blame for the quick defeat of the first Tory government in sixteen years. "I intend to surprise people," was Joe Clark's all-too-prescient and foreboding remark five days before the May 22, 1979 election to Sandra Gwyn of *Saturday Night*. Indeed, Joe Clark did just that! But certainly not in the fashion or with the intent he envisaged in those all-too-heady days before victory.

### Points of Departure

Camp does offer an hypothesis of sorts upon which to hang his comments on the media, the Liberal party campaign, "The Death Watch" and the Conservative party crusade, "The Wimp Watch." He postulates, without garnering solid evidence, that Canadian politics in the late 1970s finally was about to undergo the long-overdue political realignment initiated so dramatically with the "populist" leadership of Diefenbaker in the late 1950s. The process was aborted when the Diefenbaker regime went off the rails. Joe Clark, the "resourceful pragmatist" and the Conservative party with its overwhelming majorities in the West and reasonably strong support in Ontario and the Atlantic provinces marked "points of departure of epic promise." Joe Clark, despite his "community of communities" vision of Canada and his perception of "federalism as a blight to private enterprise" would face and conquer the challenge of levelling "the walls of regionalism and bridge(d) the solitudes to allow Canadians the first clear view of their whole inheritance." (p. 258).

As we all know, the rush of tragic-comic events surrounding the defeat of the Progressive Conservative government and the subsequent gnashing of teeth over Joe Clark's leadership capabilities have shown Camp's hypothesis to be no more than sincere but misguided wishful thinking. As always, predicting the future is risky business especially when Canadian politics is involved. Even our crystal-ball gazing Prime Minister King found few clues to direct him in his political decision making.

*Points of Departure* is somewhat more successful when Camp deciphers the strengths and weaknesses of some of the leading political personalities and, through the use of flashbacks, tries to set the record straight on the precise nature of his role in the dramatic events of 1966-67 surrounding the Progressive Conservative party's decision to dump Diefenbaker and seek a new leader.

Moving to more recent events, Camp reflects that his analysis of the performances of Pierre and Joe at the 1979 Parliamentary Press Gallery Dinner led him to conclude that Trudeau, forever the alchemist, might be able to restore the Liberal party's fortunes and salvage a minority in the anticipated election. In fact, the author admits to a certain compassion for "a man plagued by separatists, reactionists, oil barons, bigots, economic fundamentalists and his own wife..." (p. 13).

Clark's performance was lacklustre, even awkward — his monotone speech inducing a numbing sense of alienation — and Camp remarks that the Progressive Conservative leader had not been the choice of his caucus nor did he have a political base from which to assert his control over a traditionally fractious party. What is ironic is that Camp refuses to follow his critical instincts concerning the Tory leader's capabilities and eventually goes on to enumerate all the reasons for a Progressive Conservative victory.

Camp's evaluation of the Trudeau campaign and its ineffectiveness is not what, one might call, a brilliant or even mediocre piece of "objective" journalism. Camp's deeply-imbedded partisanship, his tangential anecdotes and his search for a singular cause to explain the Liberal débâcle prevent him from pursuing some of his insights pertaining to the intensifying regionalism in the country, or the tribalizing impact of television on modern politics. He puts down Trudeau's loss of charisma, his power to stir emotions and command allegiance, to the simple explanation that Trudeau was ill-suited to run from behind. He chastizes the Grits for their love of huge rallies — their Nuremberg syndrome Camp calls it. Trudeau's emphasis on the need to patriate the constitution, unilaterally if necessary, found no resonance in the electorate because "the country had lost the idea of federalism" (p. 118). The culprit, claims Camp, for this sad state of affairs was Trudeau's Official Languages Act of 1969, especially the dastardly way in which it was implemented and administered.

Camp's chapter on the 'Wimp Watch' demonstrates his ambivalence toward Joe Clark and the Progressive Conservative party. The party's failure to achieve a majority government was a clear indication that the public shared Camp's ambivalence. To begin with, Camp rightly denounces the Progressive Conservative party's platform for its expediency and opportunism. The promises, to move the Canadian Embassy to Jerusalem, to "privatize" Petro-Canada, to allow tax deductions on mortgage payments, were aimed at the disaffected and disgruntled, but politically influential, middle class, especially in metropolitan Toronto where the election outcome would be determined.

The Red Tory commitment to the social service state, the poor and the elderly, was conspicuous by its absence from the platform. Had Clark, whom the author maintains shared, at an earlier stage in his career, Camp's conception of redistributive federalism, become hostage to the Tory Premiers and the right-wing element of the caucus represented by the likes of Sinclair Stevens? The question is posed but never answered directly. The Progressive Conservative government's actions in office did, no doubt, bring a resounding affirmative response from the author.

Camp's general assessment of Clark's leadership capabilities, based on the author's knowledge of him since the early 1960s when Clark was president of the Progressive Conservative Student Federation, is by-and-large negative. Clark was a serious, well-balanced young man of rural middle-class upbringing. While he was excellent at chairing organizational meetings and seeking concensus, Camp did not see in him "the shape of a putative prime minister" (p. 181). Apart from the offensive television ads in Quebec and Clark's man-handling by Trudeau in the television debate — only toward the end of the cam-

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## Continuing education: only a fringe benefit?

**by James B. Hartman**

**Power and Conflict in Continuing Education.** Harold J. Alford, editor. Belmont, California: Wadsworth Publishing Company, 1980. 247 pp.

Poverty of purpose in the midst of plenty: this is the plight of continuing education, the "in-phenomenon" of the eighties, a mutation in the evolution of academic life. Operating on the fringes of university activity, often without significant financial support or academic recognition, continuing education promises new sources of income and opportunities for survival, growth, and prosperity for beleaguered institutions. In a period of general retrenchment, it is one of the few areas of expansion in terms of programs, students, and income. For the individuals served—a market of 58.4 million adult learners in the United States alone has been estimated — continuing education provides the path to new skills, knowledge, and understanding for the purposes of career development, personal growth and satisfaction, or just for coping with social change.

Beneath the appearance of affluence, however, lies a reality of unstable and undefined purpose. Within itself, university continuing education is divided on such matters as the organization, staffing, financing, and evaluation of its own activities, and suffers from the lack of consistent educational policy and a sense of future direction. Even now, continuing education is being eroded through the activities of professional schools and faculty entrepreneurs from within, and from professional associations, colleges, and private entrepreneurs from without. In this Darwinian world, is continuing education fit to survive, and what new form will it take?

This book is about the state of power and politics in continuing education today, how its various constituencies attempt to prosper in a time of inflation amidst increasing internal and external competition, and how it might respond to challenges for increased co-operation. It is the product of a collaborative venture between the publisher and the National University Extension Association, which sponsored a symposium, early in 1979, including the universities, the community colleges, business and industry, the professional associations, accrediting councils, and schools of adult education. (Canadian participation included a university adult education department chairman and a former community college president now residing in the United States.)

This collection of nine revised papers, together with the transitional commentaries and transcribed highlights of the discussions, is the result of that symposium. The

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**The rise and fall...**

paign did the Liberals realize "that Clark *was* the mistake" (p. 232) — Camp was favorably impressed with the Progressive Conservative campaign masterminded by that elusive and detached Cape Bretoner, Lowell Murray.

Yet, contrary to his deepest instincts and his negative profile of the Progressive Conservative leader, Camp reveals his desire for a Conservative Party victory. Joe Clark would, like Diefenbaker in 1957, achieve power "without legacy or debt in Quebec" (p. 256). He could begin the process, thanks to the Tory hold on patronage, of rebuilding the Progressive Conservative party in Quebec and undertake the "only fateful issue confronting the nation, that of a revised accommodation in Confederation..." (pp. 256-57). That Clark had not elaborated his party's approach to renewing Confederation, beyond the nebulous 'community of communities' cliché, did not, obviously, deter Camp from formulating his rather weak rationalization. The Progressive Conservative government's inability to adjust to power would make short shrift of Camp's romantic desire for "points of departure of epic promise"! (p. 258).

**Discipline of Power**

*Discipline of Power* by Jeffrey Simpson is a captivating and superb account of the Progressive Conservative party's inability to come to terms with the exacting demands of exercising power. The fact that Simpson received the Governor General's award is a clear recognition of the very high caliber of both the analysis and writing style of *Discipline of Power*. If more Canadian political journalism could achieve the high standards of objectivity, analysis and excellent writing displayed by Simpson, then the reading public would become less scornful and sceptical of the media. The quality and nature of the debate pertaining to Canadian politics at all levels would improve considerably.

As the subtitle indicates, *Discipline of Power* is an account of the coming to power of the Progressive Conservative party under Joe Clark's leadership in the federal election of 1979. It covers the party's blundering attempts to implement its numerous platform promises during its seven months in office, the defeat of the government on the Crosbie budget and finally, the return to power of the Liberal party under the leadership of Pierre-Elliott Trudeau, more determined than ever to implement his unrealized commitment to patriation and Canadianization of the British North America Act of 1867.

Running through Simpson's penetrating and devastating account of the rise and fall of Joe Clark's Conservative government is an extremely well articulated and substantiated thesis. Joe Clark and the Conservative party, Simpson argues convincingly, came to office burdened with a couple of fatal assumptions, unrealistic and impractical platform promises and an opposition-minority party mentality, all of which were exacerbated by a total absence of leadership credibility. All of these problems made it virtually impossible for the Clark government to adjust to the exacting disciplines of power.

The first major erroneous assumption was the Conservative party's naive interpretation of its 1979 election victory. Like Dalton Camp, Joe Clark and his colleagues contended that the victory marked a turning point in Canadian politics. Liberalism was on the wane and conservative causes were on the rise. Consequently, Joe Clark believed uncritically his campaign rhetoric to the effect that if the Conservatives won they had a mandate to implement fundamental changes in the role and nature of national politics and institutions.

Drawing upon the work of George Perlin, *The Tory Syndrome* (McGill-Queen's, 1980) and the revealing analyses of the Conservative party's polling expert, Allan Gregg, Simpson destroys this naive interpretation. The Conservatives had scored only a very shaky protest victory based largely on anti-Trudeau sentiment rather than any widespread desire for fundamental changes. Furthermore, the Clark government's minority status should have signalled a cautionary approach to the exercise of power. Instead, Joe Clark talked himself and his colleagues into believing they could govern as if they had a majority. This behaviour was reinforced by a second flawed assumption whereby the Conservatives equated their situation with that of Diefenbaker in 1957.

The Conservative government had time, eighteen to twenty-four months, to begin the process of implementing the party platform before calling an election to deliver the *coup de grâce* to the Liberal party and return with a majority. Trudeau's decision to step down as leader of the Liberal party only served to accentuate the belief that the Conservatives could govern like a majority. As we all know, the Liberal party's instincts told it to go for the jugular and defeat the government on the Crosbie budget. In the interim, Jim Coutts and others shrewdly talked Trudeau into returning to lead the party into another election, the result of which was almost a foregone conclusion — the return of the Grits.

The Conservatives were thrown out of office, in part, because of their mishandling of a number of major issues, namely the embassy affair, PetroCanada, energy negotiations and the budget with its regressive excise tax on fuels. The Conservative party found itself prisoner of ill-conceived and often expedient specific promises on some of these matters. Once in office, Joe Clark and his cabinet colleagues lacked the political savvy to re-evaluate and readjust, when necessary, the government's position.

Simpson's best chapter, "The Limits of Loyalty" deals with the question of federal-provincial relations. He illustrates unequivocally why and how the Conservative government was ill-served by Joe Clark's naive perception of the current confrontation between Ottawa and the provinces. Clark's catch-all phrases — "fresh face on federalism" and "community of communities" sounded fine on the campaign trail. But these slogans placed his government in an extremely weak bargaining position, especially on the politically sensitive issue of a national energy policy which involved negotiating new pricing and taxation levels for oil and gas.

Clark's assumption that Conservative Premiers Bill Davis and Peter Lougheed would compromise and allow a quick settlement of the question would prove erroneous and fatal to his government. Clark believed that an agreement could be reached because Ottawa, which had grown too powerful since the Second World War, should and could grant the provinces more powers while acting primarily as an arbiter between provinces. After all, was Canada not simply a "community of communities"?

Fortunately for Canadians, the provinces, namely Alberta and Ontario, hoisted themselves on their own pétard. Simpson demonstrates Peter Lougheed's truculent and intransigent bargaining stance. Alberta rejected Ottawa's first offer of an $18 per barrel increase over the period 1980-83 because it meant that Ottawa would receive half of the increased revenues and the producing provinces would be required to contribute to a National Energy Bank and a Stabilization Fund. Lougheed then rejected all subsequent offers which involved less money — $12 to $13.50 increase per barrel over three years — but no Stabilization Fund.

Throughout these protracted and nerve-wracking negotiations, Bill Davis of Ontario continually denounced the Clark government for capitulating to Alberta and ignoring consumers in Canada's industrial heartland. Davis' public condemnation of the Clark government's energy policy accelerated the break-up of the volatile coalition of Ontario, namely metropolitan Toronto, voters that had brought the Conservatives to power in 1979. When an election was precipitated by the Crosbie budget it was too late for Clark and his colleagues to explain the thrust of their energy policy and rebuild that coalition. Clark had miscalculated badly the degree of loyalty of the phalanx of Conservative Premiers. Ostensibly, Clark was taught a hard lesson in federal-provincial relations, namely that "premiers are colour-blind when the vital interests of their provinces are at stake" (P. 204).

In effect, Clark's inability to negotiate a new pricing and taxing agreement with the producing provinces led directly to the disastrous Crosbie "booget" which brought the precipitous downfall of the Conservative government. John Crosbie, the "salt, blarney, and steel" finance minister from Newfoundland, fashioned a pragmatic and necessary "short-term pain and long-term gain" budget which required a majority government if it was to survive a vote in the House.

Crosbie, argues Simpson, quickly abandoned the unrealistic promises — a 'stimulative deficit' by way of a $2-billion tax cut, dismantling PetroCanada and drastic reductions in government spending — and set out to fashion a budget that would reduce the growing national deficit by substantial increases in revenues. Crosbie opposed the mortgage-interest and property-tax deductibility scheme. He convinced the cabinet that if it was politically necessary to mollify middle and upper income homeowners a less costly *credit* system would be preferable. Determined to raise about $3.5 billion in new revenues, and not being able to count upon an agreement with Alberta to share with Ottawa the windfall profits of dramatically increased oil and gas prices, Crosbie had to resort to imposing a politically explosive 18-cents-per-gallon excise tax on transportation and home heating fuels. Crosbie cowed the inner cabinet, which was deeply split, into accepting the proposal.

What Simpson fails to make clear is whether or not the budget was fully vetted with the more politically-sensitive full Cabinet. Clark and his close advisors remained convinced that with Trudeau's resignation the government could indeed act as if it had a majority. Surely, a full

p. 22

# The Imaginary Canadian

**by E. Mark Goldstein**

T. Wilden: **The Imaginary Canadian: An Examination for Discovery** Pulp Press, Vancouver, 1980.

Wilden's book title possibly meant to be percussive, and this is where it seems to miss out on a first impression, not to say much about the *imaginary* attribute of a Canadian type of humanity, which may not be easily perceived by eyes not having the *insight* of a natural born Canadian.

Be it as it may, the fundamental flaw of this attempt at "mapping out that imaginary nation — Canada" is that instead of confronting the reader with a thought out statement, it prefers excessively quoting texts. Thus, vast quotations of all kinds account easily for almost half of the volume. However, even though Wilden's book remains within the boundaries of mass communication, with its impersonal kind of transmission, techniques of public distribution and anchored in fact, more or less recent, one still cannot find merit in the book, whose structure appears so casually spliced. Here are a few pearls of wisdom demonstrating the utter banality of this piece of work:

"An Imaginary image is not the same as the real one" (cf. p. 68)

"To make matters worse, some groups already defined by society as *others* will use the very same terms to attack other groups of *others*" (cf. p. 73)

"Responsibility is a function of *the relative power to be responsible*" (cf. p. 73)

"The Real...is inhabited by persons, not by people defined as subjects and objects" (cf. p. 75)

"Let us not forget, above all, that the very process of recognizing our own colonization is itself an enormously liberatory advance" (cf. p. 236)

Wilden's attempt at political sociology, deals with a somewhat leftist viewpoint with topics such as:

**I Personal and Political**
ch 1. Law and Order
ch. 2 Divide and Rule
ch. 3 Colonization
ch. 4 The Old Question, But Not the Old Answers

**II Ideological**
ch. 5 Stereotypes and Scapegoating
ch. 6 Dominance and Domination
ch. 7 The Code of the Other

**III Economic and Historical**
ch. 8 Colonizers, Collaborators and Colonized
ch. 9 Unequal Trades
ch. 10 The First Canadian Civil War

**IV Constitutional and Political**
ch. 11 Democracy and Democratic Rights
ch. 12 The Division of Powers
ch. 13 The Tyranny of the Executive in Canada
ch.14 Resources

Further, in a list of quoted sources, under the title "Some of the Evidence", is revealed the *evidence* to be considered by the writer, who, in turn, presents his judgment to the reader, who, once on side, will presumably accept the author's pronouncement. Here are a few titles invoked in evidence: Colonized Truth; Police Morality; Multinational Waste and Inefficiency; As They See Us; Foreign Investment; Favoring the Already Privileged; all of these familiar as newspaper headings, no doubt. All this material seasoned with a lot of derivative comment results in a rather pedestrian prose. A typical example: chapter eight: *Colonizers, Collaborators and Colonized*, pp. 127-140. Out of 13 pages, *six pages* contain quotations, an intolerable stylistic mannerism.

Wilden might have intended to write a book somehow suggesting the approaches of *Beziehungssoziologie*, a kind of relational sociology, à la Leopold von Wiese (1876-1968), defining that which is *social* as an ensemble of relations: propinquity, competition, liaison, separation, assimilation, union, opposition, conflict, grouping, etc. Strangely enough, professor Wilden remains detached from his subject; this posture may have led to the loose-knit presentation of the "imaginary Canadian".

In conclusion, for one specialized in communication, as Wilden appears to be, taking large slabs of original texts, placing them between horizontal bars, disregarding the enormous space this sort of thing may take in a book which is not an anthology on a given theme, listlessly interspersing the large quotations with detached comments, all accounts for casual cohesion and lack of continuity. Add this to an anaemic imaginary topic, and you obtain "The Imaginary Canadian, An Examination for Discovery.

*Professor Goldstein is with the Faculty of Education at the University of Ottawa.*

## Continuing education...

material is divided into three sections. In the first, representatives of the major providers of continuing education (universities, industry, community colleges, professional associations) confront the question "Who should provide for whom?" The second section deals with issues in accreditation, finance, organization, and staffing, and the third speculates about the possibility of a glorious future — if! The major issues of interest to academics are discussed in the chapters entitled "The Universities," "Finance," "Organization," and "The Continuing Education Professional".

Higher education is changing, both with regard to its mission and constituencies, and continuing education is at the pivotal point. For university continuing education, the major concern is not program quality, but polity or "turf", as institutions compete with themselves and other major providers for a large but finite market of adult students. The requirement for self-supporting programs has encouraged trendy conservatism, on the one hand, yet fiscal flexibility has allowed for creative public service programs, on the other. Relations with the professional associations, in particular, have been marked by short-run, expedient, and ad hoc arrangements.

If present trends continue, the role of universities in continuing professional education will be reduced; the gainers will be the professional associations. Today, forward-looking professional associations are grappling with the central issues of quality programming, effective delivery models, performance standards, peer review and various modes of co-operation. The erosion of university influence is even farther along in the industrial sector; note the establishment of such degree-granting sources as General Motors Institute in the United States and Toyota University in Japan. It is doubtful whether the anticipated expansion in the arts, humanities, and general culture areas will sufficiently offset the potential losses in the professional areas. In the absence of planned co-operation, guided by rational policy and effective leadership, the outlook for the universities is bleak.

It is a fact of present-day academic life that decisions follow dollars. The processes, programs, and even philosophies of university continuing education often are defined and delimited by financial considerations. Given the link between financing and programming, current critical issues include the anomalous fee structures of credit and non-credit programs; financial aid for disadvantaged groups, such as women, older persons, and the handicapped; contributions from the private sector (foundations, business and industry, professional and trade associations); and paid educational leave. Future policy debates must reconsider the cost-benefit arguments that stress the economic returns of educating the traditional student at the expense of part-time adult learners, if the goal of educational equity is to be achieved.

According to a recent national survey, presidents of higher education institutions in the United States ranked off-campus and continuing education as the first and second priorities, respectively, for their institutions in the 1980s. Problems of organization and management, and their accompanying manifestations of power and conflict, undoubtedly will figure prominently in the movement of continuing education from the margin to the mainstream of academic affairs. The chief obstacles include administrative and support systems designed for the traditional full-time student, the prevailing system of discipline-centered instruction, the lack of awareness of adult needs in program design and delivery, the existence of autonomous and independent continuing education units, and peripheral faculty involvement.

Is centralization the answer? The arguments in its favor include a more effective means of meeting the challenges posed by a growing clientele, the negation of counteracting influences, improved programming, flexible budgeting, and reduced costs. However, the level of faculty support for a highly centralized scheme of continuing education is a questionable factor, whether or not such a system is seen to serve the best interests of the institution as a whole.

Practitioners of continuing education are often regarded, by themselves as well as others, as second-class academic citizens, since they do not meet the requirements of "professionalism", defined in terms of advanced training, the possession of specialized knowledge and expertise, membership in an organized association, autonomy of action, and other criteria that confer social status and recognition. This is not surprising, since many practitioners come to continuing education from other occupations, with little academic preparation for their work. Moreover, their daily tasks more resemble those of registrars, public relations officers, and administrators, than those of university faculty members whose teaching activities they co-ordinate and often envy.

Even a degree in adult education neither predicts nor guarantees the ability to do the work. An examination of the costs and benefits of full professionalism suggests the need for a greater uniformity in graduate degree programs and the development of a common foundation for the theory and practice of adult education. Until those goals are met, continuing education can best be described as an "emerging profession," since the essential elements are not fully realized.

A useful concluding chapter discusses the major assumptions underlying the diverse positions of the symposium participants and counters a number of prevalent myths about the audience thought to constitute the glorious future of continuing education. The chilling reality is that this new, undefined majority alone cannot rescue post-secondary education. (We need to be reminded that the loss of one full-time undergraduate must be offset by the gain of several part-time students). Therefore, excessive optimism must be tempered by an orderly retrenchment throughout the entire system of higher education. In the hard times ahead, practitioners of continuing education must establish more effective communication with other segments of the university through quality programming, they must become more knowledgeable about the centres of power and how to influence them, and they must elevate the goals of scholarly inquiry and professionalism above the pressing day-to-day demands of marketing and profitability.

The faults of this book are insignificant. It shares both the virtues (comprehensive coverage, variety of viewpoints) and vices (uneven quality of papers, redundant information, unresolved inconsistencies) of edited collections of articles. It is remarkably free of platitudinous cant; the rarities include exhortations to develop "creative leadership" that will instill "new vitality" into "genuine learning experience" and to "facilitate improvement of product and not be inhibiting to innovation," while all the while keeping an eye on "the bottom line." Although the transcribed discussions constitute almost one-half the book, the often disorderly interchange of ideas has been somewhat mitigated by topical editing. Apart from some peculiarly American matters relating to accrediting, licencing, and financing, the issues are broadly enough drawn to apply to the Canadian scene.

"Continuing education is in great danger," one symposium participant remarked, "because presidents are starting to care." In view of this stern warning, those in academe — presidents, trustees, deans, and faculty members — who seek a better understanding of the problems and prospects of university continuing education will profit by an encounter with this book.

*James B. Hartman is with the Continuing Education Division at the University of Manitoba.*

# J.H. Stewart Reid Fellowship

Jennifer MacDonald, an M.A. candidate in Art Conservation at Queen's University, is the 1981 recipient of the $4,500 J. H. Stewart Reid Memorial Fellowship.

Mrs. MacDonald completed her Honours B.A. in Art History and Chemistry at Queen's in 1980. In the same year she began her graduate studies in Art Conservation at Queen's and her plans for the future include a teaching career in that field.

The J.H. Stewart Reid Memorial Fellowship was established by the Canadian Association of University Teachers through voluntary contributions to honor the memory of the first Executive Secretary of the Association. The fellowship is available to Canadians pursuing post-graduate work in Canada.

# Harry Crowe dies

Harry Crowe, the Dean of York University's Atkinson College and winner of CAUT's Milner Award for Academic Freedom in Canada, died in July of a heart attack at age 58.

Dr. Crowe had been Dean of the college since 1969. While there he founded the York University chapter of Canadian Professors for Peace in the Middle East and became national chairman of the organization in 1976.

Dr. Crowe received many awards in his lifetime. In addition to the Milner Award, they include the Military Cross for service in the Second World War.

A tribute to Dr. Crowe will appear in the October issue of the *Bulletin*.

## The rise and fall...

scrutiny of the budget by the full Cabinet and caucus would have persuaded Clark and Crosbie of the political foolhardiness of this assumption.

As long as the Liberal party did not fall on its face the results of the 1980 federal election were a foregone conclusion. Simpson provides an astute analysis of the 1980 campaign strategies and platforms of all three major parties. The Conservatives ran a defensive campaign, a sort of rehash of the 1979 election which involved considerable Trudeau bashing coupled with an appeal to allow the Tory party to implement the voters' desire for "fundamental changes." What the Conservatives failed to realize was that in this era of television "party leadership is the most salient motivating factor affecting the success of a political party" (p. 291). Joe Clark's competence and credibility had been tested and found seriously wanting. He had become his party's most serious liability, whereas Trudeau remained the Liberal party's strongest asset.

The Liberal organizers, Jim Coutts and Keith Davey, adopted what the latter characterized as a "brilliantly cynical" campaign. It focused on the Conservative government's lack of performance and Joe Clark's incompetence as leader, while restricting Trudeau to prepared speeches which outlined only four or five issues requiring immediate attention and resolution. To ensure a majority Liberal government by undermining the growth in support for the NDP, Trudeau promised that the Liberals would "Canadianize" the oil and gas industry and develop an industrial strategy for Canada.

The NDP, counting on the growing popularity of its leader, Ed Broadbent, decided to follow the same strategy as in 1979, that is, attack both parties, "paying more attention to the Conservatives in western Canada and to the Liberals in Ontario" (p. 309).

Of the three national leaders only Trudeau, after abandoning the constraints placed upon him by Davey and Coutts, offered Canadians a compelling " 'larger vision' of Canada as a nation that was neither *'deux nations'* nor a compact of provinces nor a 'community of communities' " (p. 349). The powers of the national government, proclaimed Trudeau with passion and conviction, came to it not from the provinces but from all the people of Canada. Canadians responded to this compelling "larger vision" by giving the Liberals a majority government.

Trudeau, as always when confronted with a challenge, rose to the occasion and proposed to patriate the BNA Act with an interim amending formula and a charter of rights protecting all Canadians. The government also introduced a comprehensive National Energy Policy hoping to regain the National government's control over the Canadian economy. The drift, indecision, and procrastination of the third Trudeau administration, so rightly criticized by Simpson, was quickly replaced by a policy of tough, decisive and long overdue action on several fronts. If Canadians had not been "well served by their political parties in recent years" (p. 363), perhaps they will be better served in the 1980s. The country's future hangs in the balance.

*Discipline of Power* is a superbly written and powerfully argued account of the Progressive Conservative party's inability to retain power at a critical juncture in the history of the party and the nation. The Tory party desperately needed a full term in office to enable it to rediscover the fundamental role of a national party and a national government. The presence of a leader who became the party's greatest liability rather than a quintessential asset denied the Tory party that opportunity.

*Professor Behiels is with the Department of History, Acadia University.*

# VACANCIES . POSTES VACANTS

## ADMINISTRATIVE POSITIONS

**UNIVERSITY OF MANITDBA. Faculty of Architecture.** Nominations and applications are invited for the positlon of Head, Department ot Architecture. The appointee will be expected to provide innovative leadership in directing the Department's program within the overall strategy of the Faculty, and within the Canadian context and milieu. The Department offers a professional graduate program in close interdisciplinary collaboration with the Faculty's two other graduate departments of City Planning and Landscape Architecture, and with the two undergraduate departments of Environmental Studies and Interior Design. Candidates shall hold a professional degree in architecture and have recognition through professional practice and/or scholarly activity. Men and women who are Canadian citizens, permanent residents, or who are eligible for employment in Canada are especially encouraged to apply. The position is to be filled by July 1, 1982 and applications should be received prior to Dctober 1, 1981. Applications, including curriculum vitae, names and addresses of three referees should be sent to: Harlyn Thompson, Dean, Chairman, Selection Committee, Faculty ot Architecture, University of Manitoba, Winnipeg, Manitoba, R3T 2N2.

**UNIVERSITY OF GUELPH. Department of Computing and Information Science.** Professor and Chairman of Department. Salary negotiable. Administer and represent the Department; participate in its teaching and research programs; Ph.D. degree, ongoing research program and university experience; industry or government experience valuable. The Department offers well-established B.Sc. and B.A. programs in computing and information science and has strong emphasis in research on applied aspects of computing and information systems. Reply, with curriculum vitae and names of three referees to: Dean J. MacDonald, College of Physical Science, University of Guelph, Guelph, Dntario, Canada, N1G 2W1, by 15 November 1981. Enquiries — Telephone 519-824-4120, extension 3124. Position subject to tinal budgetary approval.

**THE UNIVERSITY OF BRITISH CDLUMBIA. Faculty of Science. Department of Microbiology.** Applications are invited for position of Professor and Head of the Department. The fifteen faculty members have research interests in microbial physiology, molecular biology, immunology, pathogenic bacteriology and virology. Undergraduate and Graduate courses in microbiology and immnology are offered, and some members teach courses in the interdisciplinary Biology Program. The Department graduates 40-45 B.Sc. students annually and currently has a graduate student enrolment of over 40. Applicants should have demonstrated research competence In an area of microbiology or immunology, an interest in undergraduate and graduate teaching, and appropriate administrative experience. Applications should be received before November 1, 1981 and should include curriculum vitae, list ot publications, and names of three referees. Appointment will be for July 1, 1982. Salary is negotiable. Material should be addressed to: Dean C.V. Finnegan, Faculty of Science, Universlty of British Columbia, 2075 Wesbrook Mall, Vancouver, British Columbia, V6T 1W5. Equal opportunity for employment is offered to male and female applicants.

**BRANDDN UNIVERSITY. School of Music.** Director. Applications and nominations are invited for the position ot Director of the School of Music. The successful candidate will be offered a five year appointment with an option for renewal. Salary and academic rank commensurate with experience and qualifications. In addition to three undergraduate degrees, the School of Music offers graduate programs at the Master's level in applied piano, applied violin and music education and has an enrolment of 300 in its conservatory department. The school consists of 17 full-time faculty members and 4 part-time faculty members. Applicants or nominees must have strong leadership abilities. An established musical reputation, an earned doctorate and previous administrative experience are highly desirable. Applications (accompanied by the names of three references) and nominations should be forwarded by October 31, 1981 to: Dr. H.J. Perkins, President, Brandon University, Brandon, Manitoba, R7A 6A9.

**THE UNIVERSITY OF WESTERN DNTARID. Department of Politicel Science.** Chairman. Nominations and applications are invited for the positlon of Chairman of the Department ot Political Science, Faculty of Social Science, effective July 1, 1982. A Senate Selection Committee recommends an appointment for a three-to five-year term, renewable. Nominations and applications should be sent to the Chairman of the Selection Committee, Professor B. Kymlicka, Dean, Faculty ot Social Science, Social Science Centre, The University ot Western Ontario, London, Dntario, N6A 5C2. The deadline tor submission is November 1, 1981.

**THE UNIVERSITY OF WESTERN DNTARID. Department of Geography.** Nominations and applications are invited tor the position of Chairman of the Department of Geography, Faculty of Social Science, effective July 1, 1982. A Senate Selection Committee recommends an appointment for a three-to five-year term, renewable. Nominations and applications should be sent to the Chairman of the Selection Committee, Professor B. Kymlicka, Dean. Faculty ot Social Science, Social Science Centre, The University ot Western Dntario, London, Dntario, N6A 5C2. The deadline tor submission is November 1, 1981.

**THE UNIVERSITY DF WESTERN DNTARIO. Department of Spanish and Italian.** Chairman. Nominations and applications are invited for the position ot Chairman of Spanish and Italian, the Faculty of Arts, effective July 1st, 1982. A Senate Selection Committee will recommend an appointment as Chairman for a three to five year term, renewable. The academic appointment will be at the rank of Associate or Full Professor with tenure. The successful applicant will have established a distinguished reputation in the discipline and must be acceptable to Canadian immigration procedures. Salary is negotiable, and this appointment is subject to the availability of tunds. Nominations and applications should be sent to the Chairman of the Selection Committee, Dr. J.G. Rowe, Dean, Faculty of Arts, University College, The University of Western Dntario, London, Dntario, N6A 3K7. The deadline tor submissions is December 1, 1981.

**THE UNIVERSITY DF WESTERN DNTARID. Department of English.** Chairman. Nominations and applications are invited for the position of Chairman of the Department of English, the Faculty of Arts, effective July 1, 1982. A Senate Selection Committee will recommend an appointment as Chairman for a three to tive year term, renewable. The academic appointment will be at the rank of Associate or Full Professor with tenure. The successful applicant will have an establlshed reputation in the discipline and must be acceptable to Canadian immigration procedures. Salary is negotiable, and this appointment is subject to the availability of funds. Nominations and applications should be sent to the Chairman of the Selection Committee, Dr. J.G. Rowe, Dean, Faculty ot Arts, University College, The University of Western Ontario, London, Dntario, N6A 3K7. The deadline for submissions is December 1, 1981.

## CAUT ADVERTISING POLICY AND CENSURE

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## THE UNIVERSITY OF MANITOBA

*Invites applications and nominations for the position of*

## DIRECTOR, SCHOOL OF ART

The School offers programs leading to the Diploma and B.F.A. (Studio) in the major areas of ceramics, drawing, graphic design, painting, photography, print making and sculpture and the B.F.A. (Art History). There are at present 24 academic and live support staff and 370 students enrolled in the School.

Candidates should have an established academic and/or professional reputation in Art and strong leadership qualities. Ability to relate to both the generat and professional communities, to administer resources effectively to futfill the goals and missions of the School and University, and sensitivity to both the universal and uniquely Canadian aspects of Art will be important considerations.

The University encourages both women and men to apply for this position and especially invites applications from Canadian citizens, permanent residents, and others eligible for employment in Canada at the time of application.

The appointment is expected to commence July 1, 1982 and has a term of normally five to seven years. Please address enquiries and recommendations to.

Professor R.A. Johnson, P.Eng.,
Provost and Chairman, Selection Committee,
Room 202, Administration Building,
The University of Manitoba,
Winnipeg, Manitoba R3T 2N2

Applications and nominations will be received untit September 30, 1981

## ACTUARIAL MATHEMATICS

**UNIVERSITY DF WATERLDD. Department ot Statistics. Actuarial Mathematics.** Applications are invited for a taculty position in actuarial science. Starting date July 1, 1982. A post-graduate degree, associateship in the Society of Actuaries, and the ability to teach and do research are required, and additional academic or professional qualifications are desirable. Duties include undergraduate and graduate teaching and research. Send curriculum vitae and arrange tor three letters ot reference to be sent to Dr. J.F. Lawless, Chairman, Department ot Statistics, Universlty of Waterloo, Waterloo, Dntario, N2L 3G1. Subject to availability of funds. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

## AGRICULTURAL ECONOMICS

**UNIVERSITY OF GUELPH. School of Agricultural Economics and Extension**

**Education and the Department of Economics.** Applications are invited for a tenure track joint position in the above two Departments. Teaching responsibilities will include Diploma and Undergraduate Courses in Production Management, Operations Research, and Managerial Economics. Candidates should possess a Ph.D. degree in Agricultural Economics, Business Administration or equivalent. Knowledge of the Canadian agricultural sector is a definite asset. Research experience and teaching experience is desirable. Salary and rank negotiable in accordance with qualifications and experience. Date of appointment: October 1, 1981. Letters of application should be directed as soon as possible to: Professor P.A. Wright, Acting Director, School of Agricultural Economics and Extension Education, University of Guelph, Guelph, Ontario, N1G 2W1. Position subject to final budgetary approval.

**UNIVERSITY OF SASKATCHEWAN. Agriculturel Economics.** Title of Position: Tenure track position. Location: Department of Agricultural Economics, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, S7N 0W0. Major Responsibilities: 1. Teaching undergraduate and graduate level courses in agricultural economics with emphasis on the production and management of the farm firm or the agricultural business firm. 2. Developing and conducting a research program in the area of the firm and business decision making. 3. Undertaking extension activity that is complementary to research and teaching in his/her area. Qualifications: Ph.D. with emphasis in agricultural business management or alternatively production-management. Strong minors in quantitative methods and/or the macro economics of the agricultural industry would be desirable. Rank and Salary: Competitive salary in accordance with salary scale. Date position open: July 1, 1981. General Information: The Department of Agricultural Economics at the University of Saskatchewan has a teaching program which covers the vocation, bachelor and master of science level. It has an on-going research program as well as a small extension program. The University is well served with library and computer facilities. It contains a broad range of degree granting colleges, and maintains an enrolment in excess of 10,000 students. Applications: Canadian citizens and landed immigrants are invited to apply. Interested candidates should apply with detailed curriculum vitae, transcripts, and names and addresses of three referees to: Dr. W.H. Furtan, Associate Professor and Head, Department of Agricultural Economics, University of Saskatchewan, 328 Kirk Hall, Saskatoon, Saskatchewan, Canada, S7N 0W0.

**UNIVERSITY OF BRITISH COLUMBIA. Faculty of Agricultural Sciencas. Department of Agricultural Economics.** Applications and nominations are invited for the position of Assistant Professor in the Department of Agricultural Economics. This position involves teaching, research and extension responsibilities, with teaching at the graduate and undergraduate levels. Candidates should possess a Ph.D. degree in one of the specialties of agricultural economics. Preference will be given to those with teaching experience and knowledge of the Canadian agricultural sector. Salary negotiable in accordance with qualifications and experience. The University of B.C. offers excellent fringe benefits. Applications with curriculum vitae, nominations or inquiries should be sent to: Dr. J.F. Richards, Chairman, Selection Committee, Office of the Dean, Faculty of Agricultural Sciences, MacMillan Building, University of B.C., Vancouver, B.C., V6T 2A2. Equal employment opportunities are offered to male and female applicants. Closing date: September 30, 1981 or until filled.

## ARCHITECTURE

**TECHNICAL UNIVERSITY OF NOVA SCOTIA. Faculty of Architecture.** Applications for full-time appointment are sought from teachers of architecture possessing significant experience and a post-professional degree who can contribute to the Faculty's teaching and research in: Design, Design method and communication (design theory; computer applications); Building Environment (integrated studies of the thermal environment, lighting and acoustics). Interested persons should send a resume that includes a statement of teaching interests, indication of availability and referees to: Dr. Peter Manning, Dean, Faculty of Architecture, Technical University of Nova Scotia, P.O. Box 1000, Halifax, Nova Scotia, Canada B3J 2X4.

# UNIVERSITY OF SASKATCHEWAN

# DEAN

# VETERINARY MEDICINE

Applications and nominations are invited for the position of Dean of the Western College of Veterinary Medicine with the appointment to be effective July 1, 1982. The initial term is normally for five years and may be renewed by mutual agreement.

The Western College of Veterinary Medicine was established in 1963 to serve the needs of Western Canada and meets its responsibilities in three major areas: education, research and service. Education, the primary function, embraces undergraduate teaching in veterinary medicine and related disciplines. Formal graduate study is offered toward the postgraduate diploma, and the M.Sc., M.Vet.Sc., and Ph.D. degrees. The college has a strong commitment to research. Intern and residency training programs are available in clinical departments. Service programs are conducted through a veterinary teaching hospital.

Full-time enrolment in the college for 1980-81 was about 270 undergraduates and 50 graduate students. The University has approximately 10,000 full-time students registered in fourteen colleges and three schools.

Applicants should have an established reputation as an academic scholar and teacher, and the necessary professional and administrative experience and skills to provide leadership for the continuing development of the academic and research programs within the college.

Nominations and applications with complete resumes will be accepted until November 15, 1981 and should be submitted to the secretary at the following address:

Mr. N.K. Crem
University Secretary
University of Saskatchewan
Saskatoon, Saskatchewan
S7N 0W0

## ART

**THE UNIVERSITY OF LETHBRIDGE. Department of Art.** One position as Assistant Professor of Art and Art Gallery Director/Curator. Duties to include Director/Curator of the University Art Gallery. Gallery administration and organization of exhibitions, visiting artist program and related art gallery programs. Maintenance of the permanant University Art Collection. Teaching of two art courses per year subject to departmental needs. Master's degree or equivalent. Significant professional experience in gallery administration and teaching art courses. Salary schedule (1981-82): Assistant Professor — Minimum $24,204. Applications including a curriculum vitae, transcripts, and three letters of reference should be sent to: Professor Herbert A. Hicks, Chairman, Department of Art, The University of Lethbridge, 4401 University Drive, Lethbridge, Alberta, T1K 3M4. Tenure-track position, probationary appointment to begin 1 January 1982. Closing date: November 2, 1981.

## ATHLETICS

**THE UNIVERSITY OF BRITISH COLUMBIA Athletic Department.** The University of British Columbia, in conjunction with the Vancouver Rowing Club requires full-time elite Head Rowing Coaches for an exciting new joint rowing program whose objectives are excellence in collegiate and international competition for both men and women, light and heavyweight. Prerequisites: Successful international experience as a Rowing Coach, dynamic organizational ability and vision for excellence. Term: three years, minimum. Salary: Commensurate with ability and experience. Apply immediately to: U.B.C./V.R.C. Committee, c/o Dr. Robert Hindmarch, University of British Columbia, Athletic Department, 210-6081 University Blvd., Vancouver, B.C. V6T 1W5.

## BIOCHEMISTRY

**UNIVERSITY OF ALBERTA. Dapartmant of Biochamistry. Molacular Biology in Alberta.** Opportunities for promising graduate student candidates and postdoctoral fellows in biomedical research now exist under the auspices of the Alberta Heritage Trust Fund for Medical Research. The Department of Biochemistry of the University of Alberta is recruiting suitable candidates interested in research in the followino fields: biochemical virology and viral oncology; membrane biology; the structure and function of proteins, including enzymes; x-ray crystallography and NMR spectroscopy; DNA replication, repair and structure; DNA mediated gene transfer; biochemistry of the immune response; metabolic control mechanisms; and molecular biology of bacterial surface structures. Interested applicants should forward their Curriculum Vitae to: Department of Biochemistry, Medical Sciences Building, University of Alberta, Edmonton, Alberta, T6G 2H7. Please apply to Dr. J.S. Colter at the above address.

**UNIVERSITY OF ALBERTA. Research Associate, Immunologist/Btochemist, Ph.D.** Individual with background in peptide receptors and protein chemistry. University research laboratory. Successful candidate to be considered for Alberta Heritage Medical Research Foundation support. Send CV and references to Dr. P.M. Crockford, 7-117 Clinical Sciences Building, University of Alberta, Edmonton, Alberta, Canada. T6G 2G3.

**UNIVERSITY OF ALBERTA. Research Associate, Biochemist/Cell Biologist, Ph.D.** Individual with background in Reproductive Endocrinology/Infertility. University research laboratory. Successful candidate to be considered for Alberta Heritage Medical Research Foundation support. Send CV and references to Dr. P.M. Crockford, 7-117 Clinical Sciences Building, University of Alberta, Edmonton, Alberta, Canada. T6G 2G3.

**UNIVERSITY OF ALBERTA. Dapertment of Biochemistry.** Applications are invited for the position of Professional Research Assistant in the general area of membrane structure and function. This position, available on or about January 1, 1982, will involve basic research on the role of lipids in biomembranes, especially physical (calorimetric and NMR) studies of lipid phase behaviour and lipid molecular dynamics and orientation, lipid-protein interactions in model and biomembranes, and the regulation of the activity of membrane-bound enzymes by lipids. Candidates should possess the Ph.D. degree with at least two years of appropriate postdoctoral experience. Salary will be commensurate with qualifications and experience, starting at $18,400 per annum for someone with two years of postdoctoral experience. Applications, including a detailed curriculum vitae and the names of three references, should be sent to: Dr. Ronald N. McElhaney, Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada, T6G 2H7.

**UNIVERSITY OF ALBERTA. Dapartmant of Biochamistry.** Applications ara invited for the position of Postdoctoral Research Fellow in the ganeral area of membrane structure and function. This position, available on April 1, 1982, will involve basic research on the role of lipids in biomembranes, particularly physical (calorimetric and NMR) studies of lipid phase behaviour and lipid molecular dynamics and orientation, lipid-protein interactions in model and biomembranes, and the influence of lipids on the activity of membrane-bound enzymes. Candidates should be newly graduated Ph.D.'s or have had no more than one year of previous postdoctoral training. Salary will be $14,000 per annum for a newly qraduated Ph.D. and will increase by $1,000 per annum for each year of postdoctoral experience. Applications, including a detailed curriculum vitae and the names of three references, should be sent to: Dr. Ronald N. McElhaney, Department of Biochemistry, University of Alberta, Edmonton, Alberta, Canada, T6G 2H7.

## BIOLOGY

**UNIVERSITY OF SASKATCHEWAN. Department of Biology. Postdoctoral Position — Insect Physiology.** A postdoctoral position is available to study the reproductive physiology of insects (tenable for one year in the first instance, renewable for a second, and possibly a third year). Salary based on NSERC rates. Ph.D. with biochemical expertise required. Send curriculum vitae and names of three referees, or write for further information, to Dr. Cedric Gilliott, Department of Biology, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

## BUSINESS ADMINISTRATION

**DALHOUSIE UNIVERSITY. School of Business Administration.** Applications are invited at various ranks in all areas for 1981/82 including Accounting, Finance, Management, Information Systems, Marketing, Policy, Statistics, Transportation, International Business, Organizational Behaviour and Organizational Theory. Distinguished scholars in other fields will also be considered. Qualifications required are a genuine interest in teaching and a strong research orientation. Salary and rank will be commensurate with the applicant's qualifications and experience. Enquiries should include a curriculum vita and the names of three referees and should be sent to: Dr. John H. Schelbelhut, Director of Business Administration, Dalhousie University, Halifax, Nova Scotia, B3H 1Z5.

**QUEEN'S UNIVERSITY. Business Ad-**

**ministration and Commerce.** Applications are being accepted for tenure-track and/or visiting faculty positions in Accounting, Finance and Marketing. Teaching will be at the B. Com., MBA and Ph.D. level. Completed Ph.D. is strongly preferred. Rank and salary are open. Positions are open to both male and female applicants. Send resume to: Dr. H.O. Helmers, Associate Dean, School of Business, Queen's University, Kingston, Ontario, K7L 3N6.

**UNIVERSITY OF BRITISH COLUMBIA. Commerce and Business Administration.** Applications are invited in most areas including accounting; finance (empirical); management information systems; marketing; industrial relations; and applied economics (industrial organization and policy focus). Distinguished researchers in statistics will also be considered. As a minimum, applicants must be nearing completion of their Ph.D. studies. Other required qualifications include an interest in undergraduate teaching, a very strong research orientation, and an ability to supervise doctoral candidates. Most openings are at the rank of assistant professor. Salary will be commensurate with the applicant's qualifications and experience. The positions are open to both male and female applicants. Enquiries should include a curriculum vitae and the names of three references, and should be sent to: The Dean, Faculty of Commerce and Business Administration, University of British Columbia, B.C. V6T 1Y8.

**YORK UNIVERSITY. Faculty of Administrative Studies.** Positions open commencing July 1, 1982, subject to budget approval in the following areas: Accounting, Behavioural Science, Economics, Labor Relations, Finance, Information Systems, Management Science, Marketing, Policy & Environment, Management Policy, Production Management. Rank and salary are open. Successful candidate will be expected to be active in research and to teach in the Ph.D., Masters, and Undergraduate Programmes. Please submit curriculum vitae and references to W.B. Crowston, Dean, Faculty of Administrative Studies, York University, 4700 Keele Street, Downsview, Ontario, M3J 2R6. Deadline for submission — when positions are filled.

**UNIVERSITY OF WINDSOR. Faculty of Business Administration.** Applications are invited for teaching positions: Administrative Studies; Accounting; Finance; Marketing; Management Science. Doctorate, Near-Doctorate, M.B.A. plus relevant experience or professional designation. Salary and rank competitive. Apply to: Dr. George Neal, Interim Dean, Faculty of Business Administration, University of Windsor, Windsor, Ontario, N9B 3P4. Phone (519) 253-4232 Ext. 279.

**McMASTER UNIVERSITY. Faculty of Business.** Applications are invited in the following areas: (i) Accounting, (ii) Finance, (iii) Management Information Systems, (iv) Marketing, (v) Personnel and Industrial Relations, (vi) Production and/or Management Science. Rank depends on qualifications and experience; preferably at the Assistant or Associate Professor level. Visiting appointment is also possible. Ph.D. or DBA degree is expected, preferably with teaching and research experience. Duties include research and teaching at both graduate and undergraduate levels. Applicants for Management Information Systems, Production and/or Management Science will be expected to contribute to the Ph.D. program in these areas. Applicants in Marketing will be expected to teach courses in Introductory Marketing, Communications, Distribution and/or Industrial Marketing. Applicants in the fields of Personnel and Industrial Relations with teaching proficiency in both areas will be given preference. Salary will be commensurate with qualifications, teaching and practical experience. Appointment date is open; January 1 or July 1, 1982 are preferred. Application date closes when position is filled. Applications should be sent to Dr. A.Z. Szendrovits, Dean, Faculty of Business, McMaster University, Hamilton, Ontario, L8S 4M4.

**DALHOUSIE UNIVERSITY. School of Business Administration.** Applications are invited at various ranks in all areas including Accounting, Finance, Management, Information Systems, Marketing, Policy, Statistics, Transportation, International Business, Organizational Behaviour and Organizational Theory. Distinguished scholars in other fields will also be considered. Qualifications required are a genuine interest in teaching and a strong research orientation. Salary and rank will be commensurate with the applicant's qualifications and experience. Enquiries should include a curriculum vitae and the names of three referees and should be sent to Dr. John H. Scheibelhut, Director, School of Business Administration, 6152 Coburg Road, Dalhousie University, Halifax, Nova Scotia B3H 1Z5.

**UNIVERSITY OF WATERLOO. Business Administration.** Accounting and Finance. Applications are invited for faculty positions at the rank of associate or assistant professor from those with teaching and research interests in (i) managerial accounting (ii) financial accounting (iii) finance. Ph.D. or equivalent. Salary and rank will depend on qualifications. Appointments effective September 1, 1981 or by arrangement. Appointments available until positions filled. Send resumes to Dr. John R. Hanna, Professor of Accounting, 222 Hagey Hall, University of Waterloo, Waterloo, Ontario, N2L 3G1. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position. The availability of this position is subject to budgetary approval.

**WILFRID LAURIER UNIVERSITY. School of Business & Economics.** Applications are invited for teaching positions in the area of: Accounting, Finance, Operation's Management, and Introductory Business for the 1982/83 teaching year. Qualifications: Ph.D. or Ph.D. candidates. Duties: Include graduate and/or undergraduate teaching. Applications will be accepted until positions are filled, and are subject to budget approval. Send applications to: Dr. T.F. Cawsey, Ph.D., Associate Dean of Business. School of Business & Economics, Wilfrid Laurier University, Waterloo, Ontario, Canada, N2L 3C5.

## CELL GENETICS

**ONTARIO CANCER TREATMENT AND RESEARCH FOUNDATION. LONDON CLINIC. Cell genetics.** London, Ontario, Canada. Applications are invited for the position of Career Scientist from applicants with a minimum of 2-3 years post-doctoral research experience in Cell Genetics. This position is to join a recently formed multidisciplinary research group studying the biology of cancer metastasis. The research objectives of the group are to gain an understanding of how the tumor microenvironment may modulate the metastatic potential of tumor cell populations. The successful candidate will have proven expertise in a relevant field of research and the ability to develop an interactive research program with other members of the group. Salary will be commensurate with experience. Applications to Dr. K. Moore, Experimental Oncology Group, Department of Radiation Oncology, University of Western Ontario, P.O. Box 54, Marysville, Michigan, U.S.A., 48040.

## CHEMISTRY

**UNIVERSITY OF SASKATCHEWAN. Department of Chemistry and Chemical Engineering.** Applications are invited from qualified candidates for appointments as Postdoctoral Fellows and Research Associates in the following fields of chemistry and chemical engineering: — Theory of conformational changes and chemical reactions, energy hypersurfaces, quantum chemistry of biomolecules, photochemistry and radiation chemistry of transition metal complexes and high pressure chemistry, laser photochemistry, photophysics and spectroscopy, organometallic chemistry, organic reaction mechanisms, electron spin resonance of solid state defects and organic radicals, spin Hamiltonian theory, chemical reactions genereted by ultrasound, dynamics of fast reactions using ultrasonic techniques, corrosion engineering, catalysis, production of liquid and gaseous hydrocarbons from coal biomass. These positions are tenable initially for one year, renewable, at rates up to the maximum allowed by the NSERC grant regulations. Send curriculum vitae, transcripts and letters from three referees to the undersigned, from whom further particulars may be obtained. Professor A.R. Knight, Head, Department of Chemistry and Chemical Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0, Canada. Telephone 306-343-2933.

**CONCORDIA UNIVERSITY. Chemistry Department.** Post-doctoral research positions are available at the Chemistry Department, Concordia University. Fields in which appointments may be made include; photochemistry, spectroscopy, environmental chemistry, analytical chemistry, crystallography, biochemistry and physical organic chemistry. Enquiries to: Professor C.H. Langford, Chairman, Chemistry Department, 1455 de Maisonneuve Blvd. West, Montreal, Quebec. H3G 1M8.

**UNIVERSITY OF MANITOBA. Department of Chemistry.** A position is available tor a research associate to work on the physical chemistry of protein denaturation. Candidates should have post-doctoral experience in the field. Stipend for the first year will be $20,000 per annum. Start date: January 1, 1982. Send curriculum vitae and names of three referees to Dr. C.C. Bigelow, Dean of Science, University of Manitoba, Winnipeg, Manitoba, R3T 2N2.

**UNIVERSITY OF TORONTO. Department of Chemistry. Postdoctoral Reseerch Positions.** Applications are invited from qualified candidates for one year appointments as Postdoctoral Research Fellows in any area of chemistry. Stipends will be at NSERC rates and will be determined by qualifications and experience. Please send curriculum vitae, transcripts and letters from three referees to the undersigned, from whom further particulars may be obtained. Professor K. Yates, Chairman, Department of Chemistry, University ot Toronto, Toronto, Ontario, Canada. M5S 1A1.

**McMASTER UNIVERSITY. Department of Chemistry.** Phytochemist. Applications are invited tor a Research Associateship in Phytochemistry. Applicants must have a Doctoral degree in Chemistry and postdoctoral experience in the use of radioactive tracers and in the synthesis and the controlled degradation of natural products labelled with Carbon-14 and Tritium. Salary $1,200 per month. Applications including curriculum vitae and the names of referees should be sent to: Mr. E.G. Brooman, Department of Chemistry, McMaster University, Hamilton, Ontario L8S 4M1.

**UNIVERSITY OF WINDSOR. Department of Chemistry.** The Department of Chemistry is seeking applicants for a (probationary) Assistant Professorship beginning in January 1982 or at a date to be arranged. This is a regular full-time appointment. The successful candidate will be expected to develop a significant research programme, and to contribute to the Department's teaching at both undergraduate and graduate levels. The area of specialization is open, but preference will be given to those candidates whose research interests complement those of present faculty members. The main criterion to be applied will be that of excellence. Candidates should submit a curriculum vitae and a summary of their research interests and the names of three referees to: Dr. D.G. Tuck, Head, Department of Chemistry, University of Windsor, Windsor, Ontario, N9B 3P4, from whom further details can be obtained.

**THE UNIVERSITY OF WESTERN ONTARIO. Department of Chemistry.** The University of Western Ontario, Department of Chemistry, invites applications for an appointment at the Assistant Professor level in Physical Chemistry. Applicants are expected to develop an active research program and to share in departmental teaching responsibilities. Preference will be given to candidates whose field is Electrochemistry and the appointment, subject to budgetary approval, will date from September 1, 1982. Applications, accompanied by a curriculum vitae with a list of publications, the names of referees, a description of research experience and future research plans, should be submitted by October 1, 1981 to: J.B. Stothers, Chairman, Department of Chemistry, The University of Western Ontario, London, Ontario, N6A 5B7, Canada.

## CLASSICAL STUDIES

**THE UNIVERSITY OF LETHBRIDGE. Classical Studies.** Program in Classical Studies. One position tor a two-year term at the rank of Assistant Professor. Ph.D. or near completion. Duties are to teach Greek and Latin languages at elementary level and survey courses in Greek and Roman history. Salary schedule 1981-82: Assistant Professor — Minimum $24,204. Applications including a curriculum vitae, transcripts, and three letters of reference should be sent to: Dean A.F. Cassis, Faculty ot Arts and Science, The University of Lethbridge, Lethbridge, Alberta, T1K 3M4. Term appointment beginning 1 January 1982. Closing date: When position is filled.

## COMBINATORICS & OPTIMIZATION

**UNIVERSITY OF WATERLOO. Faculty of Mathematics. Department of Combinatorics & Optimizetion.** Applications are being accepted for the position of Assistant or Associate professor in Continuous or Discrete Optimization. The position is tor a three-year definite term, with the possibility of a tenure track appointment at the end of this period. Applicants should have proven ability, or the potential, for excellent research and effective teaching. Responsibilities will also include the supervision of graduate students. Salary and rank will be commensurate with qualifications and experience. Effective date of appointment is September 1, 1982. Interested individuals should send resumes and the names of three references to Professor J.A. Bondy, Chairman, Department of Combinatorics and Optimization, University of Waterloo, Waterloo, Ontario, N2L 3G1. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position. Subject to availability of funds.

## COMPUTER SCIENCE

**BROCK UNIVERSITY. Department of Computer Science.** Applications are invited for temporary or tenure track positions at the assistant professor rank. The competition will remain open until the positions are filled. A Ph.D., preferably in Computer Science, or equivalent industrial and/or commercial experience is preferred; however an applicant having an M.Sc. and expecting to soon complete a Ph.D. will be considered. Responsibilities will be primarily teaching at the undergraduate level and conducting research. Brock University is a small university in the Niagara Peninsula within easy driving distance of Toronto, Ontario and Buffalo, New York. The department of Computer Science is a rapidly growing department offering both a B.Sc. and a B.Sc. (Hons.) program. Applications, including a curriculum vitae and names of three references, should be submitted, as soon as possible to: Chairman, Department of Computer Science and Information Processing, Brock University, St. Catharine's, Ont. L2S 3A1.

**UNIVERSITY OF NEW BRUNSWICK IN SAINT JOHN. Division of Mathematics, Engineering, and Computer Science.** Applications are invited tor a tenure-track position at the Assistant/Associate level to begin July 1, 1982. Ph.D. in Computer Science is preferred but may be compensated for by equivalent experience. Duties include teaching undergraduate courses and conducting research. Salary commensurate with rank and qualifications. Applicants should send a curriculum vitae and names of three references to Dr. I.R. Cameron, Dean of Faculty, University ot New Brunswick in Saint John, P.O. Box 5050, Saint John, N.B. E2L 4L5. Applications close when the position is filled.

**CONCORDIA UNIVERSITY. Department of Computer Science.** Computer Science Faculty Positions. Tenure track and temporary positions are available at all levels. Areas of special interest include: a) data base systems and management, b) computer input and output techniques and applications, candidates strong in other areas will also be considered. Applicants should have a Ph.D. degree in computer science or related field. The department is very active in research and it offers undergraduate and graduate programs with an enrolment of 1000 students. Apply giving resume and names of three references to: Dr. C.Y. Suen, Chairman, Department of Computer Science, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, H3G 1M8, Canada.

## CONTINUING EDUCATION

**UNIVERSITY OF MANITOBA. Division of Continuing Education.** Program Coordinator, Social Work. The Continuing Education Division of the University of Manitoba invites applications for the position of program co-ordinator in the field of social work continuing education. Candidates should hold a Master's degree in social work with two or more years of suc-

cessful practice. Experience in the design, development, marketing and administration of continuing education programs in social work required. Knowledge of the Manitoba context desirable. Men and women who are Canadian citizens, permanent residents, or who are eligible for employment in Canada are especially encouraged to apply. Rank: Instructor I. Salary: $17,000 - $22,000. Applications, including curriculum vitae should be sent to Dr. T.R. Morrison, Dean, Continuing Education, University of Manitoba, Winnipeg, Manitoba, R3T 2N2. Closing date is September 30, 1981.

**UNIVERSITY OF MANITOBA. Continuing Education Division.** Co-ordinator Language Programs. The Continuing Education Division of the University of Manitoba invites applications for the position of co-ordinator of language programs. Candidates should hold a doctorate in the romance languages with specialization in French and two or more years of successful teaching at the post-secondary level. Experience in the design, development and administration of language-based continuing education programs is required. Ability to develop and administer, on an annual basis, a national residential language program essential. Familiarity with ESL programs desirable. Men and women who are Canadian citizens, permanent residents, or who are eligible for employment in Canada are especially encouraged to apply. Rank: Assistant Professor (non tenure-track). Salary Range: $21,895-$25,000. Applications including curriculum vitae should be sent to Dr. T.R. Morrison, Dean, Continuing Education, University of Manitoba, Winnipeg, Manitoba, R3T 2N2. Closing date is September 30, 1981.

## CROP SCIENCE

**UNIVERSITY OF GUELPH. Crop Science Department.** Post Doctoral Fellow or Research Associate — Cell and Tissue Culture. To conduct cytological and selection research on cell cultures in crops, mainly haploid barley. Ph.D. with knowledge of plant cell and tissue culture. Salary $14,220 to $15,540. for Post-Doc, higher with experience. Resume, transcripts and two letters of reference should be sent to Dr. K.J. Kasha, Plant Cell Culture Centre, Crop Science Department, University of Guelph, Guelph, Ontario. N1G 2W1, Canada. Position available October 1, 1981 or when filled.

**UNIVERSITY OF GUELPH. Department of Crop Science.** Assistant/Associate Professor, Protein and Oilseed Breeder. Full time probationary position (tenure track). Responsibilities include peanut and Phaseolus breeding, undergraduate and graduate teaching and some extension. Position offers good opportunity to continue newly-established programs. Good field, growth room and laboratory facilities and technical assistance. Applicants should possess Ph.D. in plant breeding with additional strengths in pathology or biotechnology. Salary and rank commensurate with training and experience. Closing date October 31, 1981. Send resume, transcripts and names and addresses of three referees to: Dr. J.W. Tanner, Chairman, Department of Crop Science, University of Guelph, Guelph, Ontario, N1G 2W1, Canada. Position subject to final budgetary approval.

## DENTISTRY

**UNIVERSITY OF ALBERTA. Faculty of Dentistry.** The Faculty of Dentistry at the University of Alberta invites applications for full-time staff positions in biomaterials, community dentistry, diagnosis and oral radiology, endodontics (Chairman or staff position), general practice, oral and maxillofacial surgery, and removable prosthodontics. The undergraduate class sizes are 50 in dentistry and 40 in dental hygiene. Rank and salary are commensurate with education and experience. Intramural private practice facilities and staff are available. Clinical applicants should be eligible for licensure in the province. The University of Alberta is an equal-opportunity employer except that Canadian citizens and permanent residents will be given preference. All inquiries and curriculum vitae should be forwarded within one month to Dean G. W. Thompson, Faculty of Dentistry, The University of Alberta, Edmonton, Alberta, Canada, T6G 2N8.

**UNIVERSITY OF BRITISH COLUMBIA. Faculty of Dentistry. Restorative Dentistry.** Applications are invited for a full-time position in the Department of Restorative Dentistry, University of British Columbia, Vancouver, Canada. Completion of an accredited postgraduate training programme is desirable, and the candidate should be registrable as a dentist in the province of British Columbia. Duties include lecturing and teaching in the undergraduate program of restorative dentistry. An active research participation is encouraged. Salary and rank commensurate with qualifications and experience. One full day per week of extramural private practice permitted. Applications should be sent to: Dr. W. A. Richter, Head, Department of Restorative Dentistry, Faculty of Dentistry, The University of British Columbia, 2199 Wesbrook Mall, Vancouver, B.C., Canada, V6T 1Z7.

**UNIVERSITY OF SASKATCHEWAN. College of Dentistry.** A position exists in the College of Dentistry, University of Saskatchewan, for a full time faculty member in the Department of Restorative and Prosthetic Dentistry. Graduate qualitifications at the Masters level and certification in Restorative or Fixed Prosthodontics preferred. Duties will include teaching at the undergraduate level and to residents in a one year rotating internship in a Teaching Hospital Dental Department, research, service and sharing departmental and College administrative and committee duties. Depending on experience and academic background, applicants could be considered for Head (Chairman) of the Department which includes the disciplines of operative dentistry, biomaterials science, endodontics, fixed and removable prosthodontics. Consulting and Practice Privileges to a maximum of two half days/week are permitted. An Intramural Practice Unit is provided for faculty who wish to utilize on base facilities. Interested applicants should send Curriculum Vitae and related documentation with at least three names for reference purposes to: Dean E. R. Ambrose, College of Dentistry, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

**UNIVERSITY OF SASKATCHEWAN. College of Dentistry.** Applications are invited for a full time position in the Department of Oral Biology, College of Dentistry, University of Saskatchewan, with primary responsibility for teaching oral anatomy/histology. The applicant should have a dental degree and post graduate training in the anatomy and/or physiology areas. Emphasis will be placed on the potential of the individual to develop an independent research program. The Department teaches anatomy, physiology, biochemistry, microbiology, and pathology in relation to the oro-facial complex and the program extends the entire five years of the undergraduate dental curriculum. Clinical involvement is actively encouraged. Salary will be determined according to qualifications and experience. Letters of application, Curriculum vitae and the names of three individuals from whom references can be obtained should be sent to: — Dr. E.R. Ambrose, Dean, College of Dentistry, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

## EARTH SCIENCES

**UNIVERSITY OF WATERLOO. Department of Earth Sciences.** Applications are being accepted for the position of Assistant or Associate professor that involves undergraduate and graduate teaching and research in Engineering Geology. The successful applicant will hold a Ph.D. in engineering or geology, preferably with a P. Eng. Preference will be given to those applicants with research interest and experience in the engineering geology characteristics of soils, numerical analysis of soil structure interactions, behavior of frozen soils. The Department currently has one of the largest undergraduate and graduate enrolments in Canada, offers a unique cooperative undergraduate program and specializes in Engineering Geology, Quaternary and Hydrogeology at the graduate level. Both M.Sc. and Ph.D. programs are offered. Research facilities for soils and permafrost studies are available in the mechanics — rock engineering laboratory. Extensive research facilities and programs are also available in the Faculty of Engineering. Salary will be commensurate with experience; 1981-2 base levels are $21,900 for Assistant Professor and $28,400 for Associate Professor. This position is available December 1, 1981 or later. Apply to: Professor P. Fritz, Department of Earth Sciences, University of Waterloo, Waterloo, Ontario, N2L 3G1. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

## ECONOMICS

**WILFRID LAURIER UNIVERSITY. Department of Economics.** Rank and salary open and commensurate with qualifications. Ph.D. or near Ph.D. preferably with some teaching experience and publications. Duties include research interests and teaching at the undergraduate level. Fields include Urban, International and Money. Positions offered subject to budget approval. Applications with curriculum vitae and names of three referees should be sent to Dr. John Finlay, Chairman, Department of Economics, Wilfrid Laurier University, Waterloo, Ontario, N2L 3C5.

**UNIVERSITY OF WATERLOO. Economics.** Applications are being accepted for one or more appointments in ranks commensurate with candidates qualifications. Ph.D. with competence in both scholarship and graduate (MA) and undergraduate teaching. Applicants with main or secondary specialization in one or more of the following areas are invited to apply: monetary economics, resource economics, macroeconomics, industrial organization and econometrics. Strong candidates in other areas will also be considered. Salaries fully competitive with other Canadian universities. The availability of this position is subject to budgetary approval. Applications, including a curriculum vitae and references should be sent to Dr. Karl Bennett, Chairman, Department of Economics, University of Waterloo, Waterloo, Ontario, N2L 3G1. One or more one-year appointments. One or more continuing appointments. Positions open until filled. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

**THE UNIVERSITY OF WESTERN ONTARIO. Department of Economics.** Assistant, Associate, or Full Professor. At Assistant level, serious consideration will be given to applicants with a PhD (or expected in 1982) who are expected to establish themselves as good teachers and recognized scholars in their field. For the senior ranks, demonstrated achievement as internationally recognized scholars and good teachers is required. Although fields are not the predominant consideration, appointments may be made in the areas of economic theory, urban economics, regional economics, and the economics of natural resources. Outstanding candidates in any area, however, will be seriously considered. These positions are open to both men and women. Canadian immigration regulations require the University to assess applications from Canadian citizens and permanent residents of Canada before considering foreign applicants. Duties include undergraduate and graduate teaching, significant research output, and some administrative duties. Fully competitive salary and other conditions. Contact Professor David Laidler, Chairman, Department of Economics, The University of Western Ontario, London, Ontario, Canada, N6A 5C2. Appointments effective July 1, 1982. Positions subject to budgetary approval. Closing date for receipt of application is November 15, 1981.

**THE UNIVERSITY OF WESTERN ONTARIO. Department of Economics.** Instructor. Work towards Ph.D. desirable, but MA's considered. Excellence in teaching required. This position open to both men and women. Canadian immigration regulations require the University to assess applications from Canadian citizens and permanent residents of Canada before considering foreign applicants. Responsibilities include teaching various undergraduate courses in economics including Principles of Economics. Salary — Floor $13,750. Contact Professor David Laidler, Chairman, Department of Economics, The University of Western Ontario, London, Ontario, Canada, N6A 5C2. Appointments effective September 1, 1982. Positions subject to budgetary approval. Closing date for receipt of applications is February 15, 1982.

## EDUCATION

**ACADIA UNIVERSITY. School of Education.** Applications are invited for a 10-month sessional appointment in Counsellor Education. Responsibilities include teaching graduate and undergraduate courses and the supervision of M.Ed. theses. Candidates with doctorate and counselling experience preferred. Salary will depend on qualifications and experience. Position to commence August 1, 1981, and applications will be accepted until the position is filled. Applications, including information on teaching experience and references should be sent to: Dr. David Muttart, Acting Dean, School of Education, Acadia University, Wolfville, N.S., B0P 1X0.

## ELECTRONICS

**CARLETON UNIVERSITY. Department of Electronics.** The Department invites applications for a faculty position at the Assistant or Associate Professor level depending on qualifications and experience. The position, available immediately, involves undergraduate and graduate teaching, and graduate supervision and research in the field of Integrated Circuit technology within the broad context of communications - electronics and digital techniques. Applicants should have a Ph.D. or equivalent in electrical engineering, should be eligible for registration as professional engineers and must be legally eligible to work in Canada for the period of the appointment. Enquiries should be addressed to: Chairman, Department of Electronics, Carleton University, Ottawa, Ontario, Canada, K1S 5B6.

## ENERGY TECHNOLOGY

**McMASTER UNIVERSITY. Westinghouse Chair in Energy Technology.** A Chair in Energy Technology has been established with the Institute for Energy Studies at McMaster University. The purpose of the Chair is to initiate and sustain research and development programs in intermediate scale energy generation technologies. Persons with a Ph.D. in Science or Engineering will be considered eligible. Teaching duties will depend on the academic department of assignment. Only Canadian citizens and landed immigrants will be considered. Candidates should direct their enquiries to: Dr. J. S. Kirkaldy, Director, Institute of Energy Studies, 1280 Main St. W., Hamilton, Ontario, L8S 4M1.

## ENGINEERING

**UNIVERSITY OF ALBERTA. Chair of Nuclear Engineering and Energy Strategy.** The University of Alberta invites applications for a newly established Chair of Nuclear Engineering and Energy Strategy. The post is for a visiting scholar and is tenable for up to two years. It is expected that the appointee will help to coordinate existing energy strategy studies within the University and will establish new programs in teaching and research related to the fields of Nuclear Engineering and Energy Strategy. Joint ventures with various government agencies will also be welcomed. The University of Alberta is an equal opportunity employer. Applications, including curriculum vitae and the names of three references should be sent to: Dr. P. F. Adams, Dean, Faculty of Engineering, 5-1 Mechanical Engineering Building, The University of Alberta, Edmonton, Alberta, Canada, T6G 2G8.

**ST. FRANCIS XAVIER UNIVERSITY. Department of Engineering.** A Faculty position is available beginning January 1, 1982 in the Department of Engineering. The successful applicant, preferably with a background in mechanical engineering, will teach undergraduate introductory courses in dynamics of particles and rigid bodies, fluid mechanics, and thermodynamics. Minimum requirement Master's degree, (Ph.D. preferred) and industrial and/or teaching experience required. Research opportunities available. Rank and salary depend upon qualifications. Applications will be received until November 1, 1981. Engineering students spend two years at St. F.X. University and then proceed to the Technical University of Nova Scotia in Halifax for the remaining three years where they specialize in one of seven engineering disciplines. Please submit applications, including names of three referees to: Dr. C. R. Hazell, P. Eng., Chairman, Department of Engineering, St. Francis Xavier University, Antigonish, Nova Scotia, B2G 1C0.

## ENGINEERING-CHEMICAL

**UNIVERSITY OF SASKATCHEWAN. Department of Chemistry and Chemical Engineering.** Applications are invited from qualified candidates for appointments as Postdoctoral Fellows and Research Associates in the following fields of chemistry and chemical engineering: — Theory of conformational changes and chemical reactions, energy hypersurfaces, quantum chemistry of biomolecules, photochemistry and radiation chemistry of transition metal complexes and high pressure chemistry, laser photochemistry, photophysics and spectroscopy, organometallic chemistry, organic reaction mechanisms, electron spin resonance of solid state defects and organic radicals, spin Hamiltonian theory, chemical reactions generated by ultrasound, dynamics of fast reactions using ultrasonic techniques, corrosion engineering, catalysis, production of liquid and gaseous hydrocarbons from coal biomass. These positions are tenable initially tor one year, renewable, at rates up to the maximum allowed by the NSERC grant regulations. Send curriculum vitae, transcripts, and letters from three referees to the undersigned, from whom further particulars may be obtained. Professor A.R. Knight, Head, Department of Chemistry and Chemical Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0, Canada. Telephone 306-343-2933.

**UNIVERSITY OF BRITISH COLUMBIA. Chemical Engineering.** Applications are invited for a one year appointment without review at the Assistant or Associate Professor rank. Candidates should have a postgraduate degree, and should be interested in developing novel teaching experiments. Field of research interest is open but a strong industrial bias is desirable. The initial term is from Jan. 1, 1982 until Dec. 31, 1982. Renewal of the appointment beyond Dec. 31, 1982 is subject to the availability of funds. Please send before Oct- 15, 1981 a curriculum vitae, names of three references and a summary of teaching and research interests to Professor John Grace, Head, Department of Chemical Engineering, The University of British Columbia, 2216 Main Mall, Vancouver, British Columbia, Canada, V6T 1W5.

**TECHNICAL UNIVERSITY OF NOVA SCOTIA. Department of Chemical Engineering.** Applicants are invited to apply for a tenure track academic appointment in the Department of Chemical Engineering, Technical University of Nova Scotia. Duties will include undergraduate and graduate teaching and independent research. Research in the area of energy is encouraged, but is not a necessity. Rank and salary will depend on the qualifications and experience of the candidate. Applications with Curriculum Vitae and names and addresses of three referees should be addressed to: Alan F. McMillan, Head, Department of Chemical Engineering, Technical University of Nova Scotia, P.O. Box 1000, Halifax Nova Scotia, B3J 2X4.

**UNIVERSITY OF SASKATCHEWAN. Department of Chemistry and Chemical Engineering.** Professional Research Associate. Position available in area of Electron Paramagnetic Resonance Spectroscopy. Expertise in single crystal epr, cryogenic and computer techniques, spin-Hamiltonian analysis, inorganic radiation chemistry, high oxidation states of metal ions. Salary: $16,656/annum. Send resume to: Professor J.A. Weil, Department of Chemistry and Chemical Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

**UNIVERSITY OF NEW BRUNSWICK. Department of Chemical Engineering.** Chemical Engineer. The Chemical Engineering Department at the University of New Brunswick has a position available as of September 1, 1981. A Ph.D. in chemical engineering or equivelent is required. Industrial experience is desirable. The department has an undergraduate and graduete program awarding B.Sc., M.Sc., M.Eng. and Ph.D. degrees. The graduate program involves fundamental and applied research, as well as studies carried out in cooperation with local industries. The department presently has eight full-time faculty members. The candidate would be involved in all aspects of the department including teaching, research and co-operative programs with local industry. Applicants should send curriculum vitae giving research interests and the names of at least three references to: Deen A.M. Stevens, Faculty of Engineering, University of New Brunswick, P.O. Box 4400, Fredericton, N.B. E3B 5A3.

## ENGINEERING-CIVIL

**CONCORDIA UNIVERSITY. Department of Civil Engineering.** Assistant or Associate Professor in Transportation. Engineering position available immediately. Position involves teaching at the undergraduate and graduate levels and participation in the research program. Qualifications include a Ph.D. degree or equivalent in engineering, as well as practical experience in the field of transportation. Resumes should be directed to: Dr. M.S. Troitsky, Chairman, Department of Civil Engineering, Concordia University, 1455 de Maisonneuve Blvd., W., Montreal, Quebec.

**UNIVERSITY OF SASKATCHEWAN. Department of Civil Engineering. Professional Research Associate.** The applicant must have obtained an M.Sc. degree or preferably a Ph.D. degree in the area of geotechnical engineering. The candidate must have a previous working knowledge in the theoretical and experimental aspects of the problems of unsaturated soils. He/she is expected to have demonstrated their scholarly work through various technical publications. The candidate is also expected to have a good working knowledge in computer programming. Term of the contract: Permanent position — subject to availability of funds. Salary: $1,700 to $2,000 per month depending upon experience and education. Duties: Analyze, synthesize and publish research papers and reports. Carry out theoretical analysis and comparative studies between theory and field study data. Interested candidates should send their resumes and addresses of three references to: D.G. Fredlund, Professor, Department of Civil Engineering, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0.

## ENGINEERING-COMPUTER

**UNIVERSITY OF OTTAWA. Computer Engineering.** Excellent opportunity. Tenure track faculty position in computer engineering. We seek an ambitious individual, preferably computer hardware oriented, to contribute to our dynamic program at the undergraduate and graduate level, and to develop his own research. A Ph.D. degree is required. Industry experience is an asset. Ottawa offers a unique opportunity in Canada for industrial research contacts and consulting. Start: as early as possible. Please send resume and names of references to Dr. Wolfgang J.R. Hoefer, Chairman, Department of Electrical Engineering, University of Ottawa, Ottawa, Canada, K1N 6N5, Tel.: (613) 231-2493.

## ENGINEERING-ELECTRICAL

**UNIVERSITY OF WATERLOO. Electrical Engineering.** Applications are invited for a faculty position in the Department of Electrical Engineering at the University of Waterloo. Candidates should have a doctorate and a commitment to excellence in teaching and research. All areas of electrical engineering will be considered. Salary and rank will be commensurate with qualifications. It is expected to make the appointment early in 1982 although it will remain open until a suitable candidate is found. Resumes should be sent to: Chairman, Department of Electrical Engineering, University of Waterloo, Waterloo, Ontario, N2L 3G1, Canada. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

**THE UNIVERSITY OF NEW BRUNSWICK. Department of Electrical Engineering.** Applications are invited for faculty positions in the Department of Electrical Engineering at the University of New Brunswick. Candidates should have an interest in graduate and undergraduate teaching in electronics with emphasis on digital circuits and systems, and a research capability in related areas. The department has a full-time faculty of 18 members, an undergraduate enrolment of 250, and a B.Sc.E. program with options in electronics, communications and fields, power apparatus and systems, control, and computer engineering. The latter area is currently expanding. In addition there are 35 graduate students working in the above areas. Applicants must be eligible for employment in Canada at the time of application. Resume and the names of three referees should be sent to: Dean of Engineering, University of New Brunswick, P.O. Box 4400, Fredericton, N.B. Canada E3B 5A3.

**THE UNIVERSITY OF ALBERTA. Department of Electrical Engineering.** The Department of Electrical Engineering is looking for a Research Associate to work in the area of combustion and plasma physics. The successful candidate must possess a Ph.D. in either Physics or Engineering. Salary: $22,000 plus. The University of Alberta is an equal opportunity employer. Phone (403) 432-2954 or write, enclosing curriculum vitae and names of references: Dr. P.R. Smy, Department of Electrical Engineering, University of Alberta, Edmonton, Alberta, T6G 2G7.

**CONCORDIA UNIVERSITY. Department of Electrical Engineering.** Applications are invited for a tenure-track faculty position at the rank of Assistant or Associate professor in the Department of Electrical Engineering at Concordia University. The position will involve teaching in the area of analog and digital electronics, and research in a related field. Applicants should hold a doctorate in an appropriate area and be familiar with modern trends in their area. Applications, which should include curriculum vitae, and the names of three referees, should be addressed to: Dr. A. Antoniou, Chairman, Department of Electrical Engineering, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, H3G 1M8.

## ENGINEERING-MATERIALS

**THE UNIVERSITY OF WESTERN ONTARIO. Faculty of Engineering Science.** Applications are invited for an appointment as an Assistant Professor in Materials Engineering. Qualifications required are a Ph.D. (or equivalent) in Materials Engineering or Metallurgy, with research experience preferably in corrosion and oxidation or mechanical properties of materials. Academic duties include initiation and conduct of research, supervision of graduate students and teaching at both the graduate and undergraduate level. The position should be filled by January 1st, 1982 or earlier. Closing date for applications is September 30, 1981. Applications, including curriculum vitae and the names of three referees may be sent to: G.F. Chess, P.Eng., Dean, Faculty ot Engineering Science, The University of Western Ontario, London, Ontario, N6A 5B9.

## ENGINEERING-MECHANICAL

**CARLETON UNIVERSITY. Department of Mechanical and Aeronautical Engineering.** Two temporary openings exist at the Lecturer, Assistant or Associate Professor level, tor a one year term. The successful applicant will have an interest in either Solid Mechanics, Design or Materials and will be required to teach at both undergraduate and graduate levels and participate in the research activities of the department. Applications with C.V. and names of three referees should be sent to: Dr. J.A. Goldak, Chairman, Mechanical and Aeronautical Engineering, Carleton University, Ottawa, Ontario, Canada, K1S 5B6. Positions are subject to budgetary approval.

**CARLETON UNIVERSITY. Department of Mechanical and Aeronautical Engineering.** An opening exists for a tenure track appointment at the Assistant/Associate Professor level. In addition, temporary openings exist for a one year term (sabbatical replacements) at the Assistant or Associate Professor levels. The successful applicants will have an interest in either Design, Solid Mechanics, or Materials and Metallurgy, and will be expected to teach at both undergraduate and graduate levels and participate in the research activities of the department. Applications with C.V. and names ot three referees should be sent to Dr. J.A. Goldak, Chairman, Mechanical and Aeronautical Engineering, Carleton University, Ottawa, Ontario, Canada, K1S 5B6. Positions are subject to budgetary approval.

**CARLETON UNIVERSITY. Mechanical and Aeronautical Engineering.** An opening exists for a tenure-track appointment at the Assistant/Associate Professor level. In addition, temporary openings exist for a one year term (sabbatical replacements) at the Assistant or Associate Professor levels. The successful applicants will have an interest in either Design, Solid Mechanics or Materials and Metallurgy and will be expected to teach at both undergraduate and graduate levels and participate in the research activities of the department. Applications with C.V. and names of three referees should be sent to Dr. J.A. Goldak, Chairman, Mechanical and Aeronautical Engineering, Carleton University, Ottawa, Ontario, Canada K1S 5B6. Positions are subject to budgetary approval.

**CARLETON UNIVERSITY. Mechanical and Aeronautical Engineering.** Two temporary openings exist at the Lecturer, Assistant or Associate Professor level, for a one year term. The successful applicants will have an interest in both Solid Mechanics, Design or Materials and will be required to teach at both undergraduate and graduate levels and participate in the research activities of the department. Applications with C.V. and names of three referees should be sent to: Dr. J.A. Goldak, Chairman, Mechanical and Aeronautical Engineering, Carleton University, Ottawa, Ontario, Canada, K1S 5B6. Positions are subject to budgetary approval.

**CARLETON UNIVERSITY. Department of Mechanical and Aeronautical Engineering.** Two temporary openings exist at the Lecturer, Assistant or Associate Professor level, for a one year term. The successful applicant will have an interest in either Solid Mechanics, Design or Materials and will be required to teach at both undergraduate and graduate levels and participate in the research activities of the department. Applications with C.V. and names of three referees should be sent to: Dr. J.A. Goldak, Chairman, Mechanical and Aeronautical Engineering, Carleton University, Ottawa, Ontario, Canada K1S 5B6. Positions are subject to budgetary approval.

**CONCORDIA UNIVERSITY. Department of Electrical Engineering.** Applications are invited for a tenure-track faculty position at the rank of Assistant or Associate professor in the Department of Electrical Engineering at Concordia University. The position will involve teaching in the area of analog and digital electronics, and research in a related field. Applicants should hold a doctorate in an appropriate area and be familiar with modern trends in their area. Applications, which should include curriculum vitae, and the names of three referees, should be addressed to: Dr. A. Antoniou, Chairman, Department of Electrical Engineering, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, H3G 1M8.

**UNIVERSITY OF WATERLOO. Department of Mechanical Engineering.** Applications are being accepted for the position of Assistant Professor. Tenure track position, initial appointment will be for three years. A recent Ph.D. graduate with experience in digital and analog control of mechanical systems. Teaching responsibilities will be primarily at the undergraduate and graduate level in control and automation. The successful applicant will be expected to contribute to the department's research in this area and will interact with faculty who have ongoing projects in this and related areas such as fluid power, machinery diagnostics and noise control. Salary will be commensurate with experience and qualifications. A detailed curriculum vitae, a stetement of teaching and research interests and the names of three referees should be sent to Dr. D.J. Burns, Chairman, Department of Mechanical Engineering, University of Waterloo, Waterloo, Ontario, N2L 3G1. Appointment effective January 1, 1982. No closing date for receipt of applications. (Subject to availability ot funds). First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

## ENGINEERING-MINERAL

**UNIVERSITY OF ALBERTA. Mining Engineering.** The Department of Mineral Engineering has an immediate opening in the fall of 1981 for a Mining Engineering Professor. Applicants with M.Sc. or Ph.D. degrees and who are interested in both undergraduate and graduate teaching will be considered. A strong interest in underground mining is desirable, however, any suitable mining experience would be considered for this position. The rank of entry of the applicant in the Department would be commensurate with his experience, background and reputation. Applicants should send a résumé to Dr. D.L. Flock, Professor and Chairman, Department of Mineral Engineering, University of Alberta, Edmonton, Alberta, T6G 2G6. The University of Alberta is an equal opportunity employer.

## ENGINEERING-NUCLEAR

**UNIVERSITY OF TORONTO. Chemical Engineering. Nuclear Engineering.** Applications are invited for a faculty position in Nuclear Engineering at the University of Toronto, to begin as soon as possible. The appointment will be made in either the Associate or Full Professor rank. Candidates should have doctoral degree, preferably in nuclear engineering, and have considerable experience in research or engineering development related to the application of nuclear energy. Preference will be given to candidates with previous academic experience and with expertise in one or more of the following areas: nuclear reactor analysis (neutronic and thermohydraulic), advanced nuclear systems, nuclear shielding, safety and containment, nuclear calculational methods or nuclear chemical engineering. The successful candidate will contribute to teaching in established nuclear engineering programs for the B.A.Sc., M.A.Sc., M.Eng. and Ph.D. degrees at the University of Toronto, and is expected to develop and supervise graduate research in chosen areas. Teaching and research facilities include the SLOWPOKE nuclear reactor, a heavy water-uranium subcritical reactor, D-T neutron source, radiochemical laboratory, and a broad range of modern nuclear instrumentation. The position is initially for a three-year term. A curriculum vitae, the names of three referees and a summary of teaching and research interests should be sent to Professor M.E. Charles, Chairman, Department of Chemical Engineering and Applied Chemistry, University of Toronto, Toronto, Ontario. M5S 1A4.

## ENGINEERING-PETROLEUM

**UNIVERSITY OF ALBERTA. Petroleum Engineering.** The Department of Mineral Engineering has two Petroleum Engineering positions open in the fall of 1982. Applications will be considered from persons who have M.Sc. or Ph.D. degrees and who are interested in teaching both graduate and undergraduate courses. A strong interest in research dealing with the enhancement of both conventional and heavy oil recovery is desirable. The entry rank would be commensurate with the background and experience of the candidate. Applicants should send a résumé to Dr. D.L. Flock, Professor and Chairman, Department of Mineral Engineering, University of Alberta, Edmonton, Alberta, T6G 2G6. The University of Alberta is an equal opportunity employer.

## ENGINEERING PHYSICS

**McMASTER UNIVERSITY. Department of Engineering Physics.** Faculty position in Nuclear Engineering. Applications are invited for a senior, tenure stream position in nuclear engineering; candidates must have a Ph.D., be Canadian citizens or landed immigrants, be committed to teaching in nuclear engineering and have strong experimental research interests in areas central to that discipline. Major experimental facilities available consist of a 5MW Reactor and four particle accelerators (10 MV Tandem, 3 MV van de Graaff, 150 kv heavy ion and 5 kv light ion) together with the general facilities of large nuclear and materials research centers. The appointment will be effective on or before January 1st, 1982 depending on availability. Applications, to be received by October 15, 1981 should include a detailed description of current research interests, curriculum vitae, list of publications and the names and addresses of three referees. Please address all applications to Professor D.A. Thompson, Chairman, Department of Engineering Physics, McMaster University, Hamilton, Ontario, Caneda, L8S 4M1.

## ENGLISH

**UNIVERSITY OF ALBERTA. Department of English.** Applications are invited from suitably qualified WOMEN and MEN for TWO tenurable positions at the Assistant Professor level, commencing July 1, 1981, or as soon thereafter as can be arranged by mutual agreement. Ph.D. preferred; versatility to teach in e variety of areas, with specialist qualifications in two or more of the following likely to be of particular interest: Expository Writing and Composition, Canadian Literature, Modern British and American Literature, nineteenth and twentieth century American Literature, Critical Theory, Children's Literature; teaching experience desirable; publication an asset. Rank minima (1981-82): Assistant Professor $24,098; Associate Professor $31,000; Professor $40,495. Send a **complete** application only, including a letter of application, a **curriculum vitae**, transcripts of university records, and the names of three referees whom the applicant has asked to write on his/her behalf, to the Chairman, Department of English, University of Alberta, Edmonton, Alberta, Canada, T6G 2E5, as soon as possible. The University is an equal opportunity employer. Because of Canadian immigration requirements, the appointee, unless uniquely qualified for the position, is likely to be a Landed Immigrant/Permanent Resident already in Canada, or a Canadian citizen.

## ENTOMOLOGY

**THE UNIVERSITY OF MANITOBA. Department of Entomology.** The Department of Entomology invites applications for a tenure-track position at the level of Assistant Professor. The successful candidate will be expected to teach undergraduate courses in either or both insect biosystematics and plant protection, and to supervise one or more graduate students in at least one of the above-mentioned fields of research. Applicants must have a Ph.D. degree, preferably university teaching experience, and the ability to develop an active research program. The University encourages both women and men to apply for this position and especially invites applications from Canadian citizens, permanent residents, and others eligible for employment in Canada at the time of application. Applications will be accepted until November 1, 1981, or until a satisfactory candidate has been identified. Applications, curriculum vitae, and the names of at least three referees should be sent to: Dr. A.G. Robinson, Head, Department of Entomology, The University of Manitoba, Winnipeg, Manitoba R3T 2N2.

## ENVIRONMENTAL BIOLOGY

**UNIVERSITY OF GUELPH. Department of Environmental Biology. Applied Microbiology.** A position is available in the Department of Environmental Biology, University of Guelph, for a faculty member for teaching and research in applied microbiology. The position is at the Assistant Professor level as a probationary appointment. The successful applicant will have a strong background in applied microbiology/biotechnology with special interests in problem-solving in the area of industrial fermentation microbiology. Excellent opportunities for developmental research exist through the funding relationship with the Ontario Ministry of Agriculture and Food, close ties with microbial geneticists and other scientists in such other University departments as Microbiology and Food Science and the School of Engineering, and excellent working contacts already developed with industry. Although the position involves a heavy commitment to research, the successful applicant will be expected to contribute to the teaching programs of the department and strengthen our offerings in modern applications of microbiology in biotechnology. Qualifications: a Ph.D in microbiology with a knowledge of modern techniques and applications of biotechnology. A strong interest in applied research and excellent potential as a teacher. The appointment, contingent on the availability of funds, is available December 1, 1981. Applications should include a complete résumé and the names of three references and should be sent to: F.L. McEwen, Department of Environmental Biology, University of Guelph, Guelph, Ontario, Canada, N1G 2W1. Closing date: October 1, 1981.

## FAMILY STUDIES

**UNIVERSITY OF MANITOBA. Department of Family Studies.** A full-time position is available at the Assistant or Associate Professor level to teach graduate and undergraduate courses and to undertake research in the area of Family Economics, Consumer Studies and/or Home Management. Preference will be given to applicants holding a Ph.D. or equivalent who have demonstrated competence in teaching and research. Salary and rank commensurate with qualifications and experience. This may be a tenure stream position. The University encourages both women and men to apply for this position and especially invites applications from Canadian citizens, permanent residents and those eligible for employment in Canada at the time of application. Enquiries and applications, including a complete curriculum vita and the names of three referees should be sent to Professor Ruth Berry, Chairman of the Selection Committee, Department of Family Studies, Faculty of Human Ecology, University of Manitoba, Winnipeg, Canada, R3T 2N2. The position is available immediately and will remain open until filled.

## FRENCH

**UNIVERSITY OF VICTORIA. French Lenguege end Literature.** Regular full-time Assistant Professor, French Language and Literature, begin 1 July, 1982. Qualifications: Ph.D. in French-Canadian Literature, publications, teaching experience, nearnative fluency in French required. Teach: French-Canadian Literature at under-grad and grad levels and advanced French Language. Salary depends on qualifications and experience. Applications, with curriculum vita and names of three referees should be sent to: Chairman. Deadline: 31 Oct., 1981. Preference to Canadian applicants/landed immigrants/those with extensive Canadian training/experience except when other applicants have clearly superior qualifications.

## GEOGRAPHY

**UNIVERSITY OF BRITISH COLUMBIA. Department of Geography.** Part time lecturer Jan. 1 - April 30/82 to teach senior undergraduate interdisciplinary workshop in urban policy. Teaching and field experience required. Salary $3-4,500 according to qualifications. Vitae and names of three referees to Dr. O. Slaymaker, Acting Head, Geography, 217-1984 West Hall, University Campus, Vancouver, British Columbia V6T 1W5. Closing date October 1, 1981.

## GEOLOGY

**UNIVERSITY OF REGINA. Department of Geology.** Assistant Professor, 6 month term from January 1, 1982, with possibility of 12 month renewal. Ph.D. in Sedimentology or Economic Geology preferred. Salary range (at present under negotiation) $20,148 to $29,655 on annual basis. Preference given to candidates eligible for employment in Canada at time of application. Curriculum vitae, telephone number, and names of three referees to: Dr. W. A. Gordon, Head, Department of Geology, University of Regina, Regina, Saskatchewan, S4S 0A2.

**UNIVERSITY OF SASKATCHEWAN. Geology.** University of Saskatchewan, Department of Geological Sciences has a vacant tenurable position for an engineering geologist/geophysicist to teach undergraduate and graduate courses and to conduct research in engineering geology. A background in structural geology may be appropriate. Well-equipped facilities are available for research in rock mechanics, fluid flow through porous media, acoustic and electrical properties of rocks, and permafrost. Good opportunities exist for joint research with locally based industry. Rank and salary commensurate with qualifications and experience. Send applications, detailed personal resume including the names of at least three referees, and other supporting data to Dr. W. G. E. Caldwell, Head, Department of Geological Sciences, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0. Please note: until November 15, 1981 consideration will be given only to applicents who are Canadian citizens or landed immigrants. After that date all epplications will be considered.

## HISTORY

**UNIVERSITY OF VICTORIA. Department of History.** A permanent appointment in the History of Science and/or Technology. Preference will be given to specialists in the interrelationships of science and society. Candidates must have a good publicetion and teaching record and be interested in interacting with colleagues in related disciplines. Competition will be closed on 1 February, 1982. Letters of application, including a curriculum vitae, should be sent to Dr. W. T. Wooley, Chairman, Department of History, University of Victoria, Victoria, B.C. V8W 2Y2.

**UNIVERSITY OF ALBERTA. Department of History.** Applications are invited for sessional lecturer for the eight month period beginning September 1, 1981. Ph.D. with some teaching experience preferred to teach courses in Tudor and Stuart Britain and Modern English Constitutional History. Salary dependent upon qualifications. Applications including curriculum vitae and names of three referees should be sent to: Dr. R. C. Macleod, Chairman, Department of History, The University of Alberta, Edmonton, Alberta, T6G 2H4. The University of Alberta is an equal opportunity employer.

## HOME ECONOMICS

**UNIVERSITY OF ALBERTA. Faculty of Home Economics. Foods end Nutrition.** Part-time sessional instructor in foods. Ph.D. in food science or food microbiology preferred. Minimum acceptable would be a Master's degree with appropriate teaching experience. To teach courses in food safety and hygiene and consumer acceptance of foods at the undergraduate and graduate level. Assistant professor — .5 appointment (approx. $8,000.00). Interested male or female applicants should submit a resume to: University of Alberta, Edmonton, Alberta, T6G 2M8. Oct. 1, 1981 to April 30, 1982. Open until filled. The University of Alberta is an equal opportunity employer.

## JEWISH STUDIES

**YORK UNIVERSITY, Faculty of Arts.** Two appointments in Jewish Studies. Preferred fields of expertise: 1) Bible, with secondary concentration in Hellenistic Judaism; 2) Talmud and Rabbinics, with secondary concentration in Hellenistic Judaism and/or Bible. Candidates should be able to participate in interdisciplinary studies and in a co-registered Arts/Education programme for the training of teachers of Judaica. An ability to teach modern Hebrew language is desirable. The availability of these positions is subject to budget approval. Rank and Salary: Assistant professor preferred, commensurate with experience and qualifications. Applications including curriculum vitae and the names of three referees to Professor Arthur Haberman, 237 Founders College, York University, Toronto, Ontario, M3J 1P3.

## KINESIOLOGY

**UNIVERSITY OF WATERLOO. Department of Kinesiology.** Applications are being accepted for the position of Assistant/Associate Professor. Ph.D. with background in bio-mechanics. Provide research direction in the mechanics of human movement. Teach biomechanics at the undergraduate and graduate levels. Salary offered is Assistant professor (minimum $21,900), Associate professor (minimum $28,400). Salary and rank commensurate with experience. Apply to Dr. M.T. Sharratt, Chairman, Department of Kinesiology, University of Waterloo, Waterloo, Ontario, N2L 3G1. Starts January 1, 1981. Open until position filled. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

## LANDSCAPE ARCHITECTURE

**UNIVERSITY OF TORONTO. Department of Landscape Architecture.** Assistant Professor; Contractually-limited term appointment for one, two or three years with the possibility of re-appointment to a total of 5 years, Department of Landscape Architecture. M.L.A. or B.L.A. plus Master's degree in a related field preferred. Major commitments to teaching in 4-year professional B.L.A. program and research. Emphasis on teaching in Landscape Architecture Design and Site Planning. Other course areas to be

determined. Salary commensurate with qualifications and experience. Send complete curriculum vitae, professional portfolio and the names and addresses of three references to: Professor William Rock Jr., Chairman, Department of Landscape Architecture, Faculty of Architecture & Landscape Architecture, University of Toronto, 230 College Street, Toronto, Ontario M5S 1A1. Effective: As soon as possible.

## LANGUAGES/LITERATURE

**SIMON FRASER UNIVERSITY. Department of Languages, Literatures and Linguistics.** The Department invites applications for the position of Visiting Assistant Professor of Hispanic Literature. This is a three-semester/limited-term appointment starting 1 January 1982 in the Spanish Division of the Department. This is a replacement position: there is no possibility of an extended appointment. Applicants should have a Ph.D. in Hispanic Literature (Peninsular and Latin American Literature), native-speaker equivalency in Spanish, and teaching experience at the college or university level. Duties include the teaching of two undergraduate courses per semester as follows: January-April 1981: 'Selected Masterpieces in Span. Lit. (241) and 'Modern Spanish-American Novel' (451); May-June 1982: Two literature courses to be determined; September-December 1982: Two courses to be determined. Remuneration: Up to $27,148 (commensurate with qualifications) plus this year's increment for the three-semester period. Curriculum vitae and the names of three referees should be sent to Dr. Neville J. Lincoln, Chairman, Department of Languages, Literatures and Linguistics, Simon Fraser University, Burnaby, B.C., V5A 1S6 no later than 15 October 1981. Preference will be given to applicants who are eligible under Canadian law for employment at the time of epplication

## LAW

**UNIVERSITY OF OTTAWA. Faculty of Law — Common Law Section.** Applications are invited for full-time positions in the Common Law Section from July 1, 1982 subject to budget approval by the University. No particular area of law is preferred and salary and rank will be commensurate with quallfications and experience. Applications should be addressed to Dean A.W.R. Carrothers, Faculty of Law — Common Law Section, University of Ottawa, Ottawa, Ontario, K1N 6N5.

## MANAGEMENT SCIENCE

**UNIVERSITY OF WATERLOO. Department of Management Sciences.** Applications are being accepted for the position of Assistant, Associate or Full Professor in Operations Research. Qualifications required include a Ph.D. in the appropriate discipline with evidence of substantial research productivity. Duties will include teaching beginning and advanced courses in Operations Research at the undergraduate and the graduate level, both M.A.Sc. and Ph.D. Salary offered: depends on qualifications. Those interested, send applications to Dr. D.W. Conrath, Chairman, Department of Management Sciences, University of Waterloo, Waterloo, Ontario, Canada, N2L 3G1. Effective Date — Permanent appointment: September 1, 1982. Possible Visiting appointment: September 1, 1981 or January 1, 1982. Closing date for receipt of application: until position is filled. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

**SAINT MARY'S UNIVERSITY. Department of Finance and Management Science.** Applications are invited for a tenure-track position in the Department of Finance and Management Science beginning September 1, 1982. Applicants should have a Ph.D. (or be near completion). The successful candidate will teach graduate and undergraduate courses in one or more of the following areas: (1) quantitative/management science, (2) information systems, and (3) computer science. The rank of the position is open and the salary is competitive. Preference will be given to citizens and legal residents of Canada. Applications should be sent to: Dr. Earl J. Robinson, Chairperson, Department of Finance and Management Science, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3. Tel: (902) 429-9780.

**SAINT MARY'S UNIVERSITY. Department of Finance and Menegement Sclance.** Applications are invited for a tenure-track position in the Department of Finance and Management Science beginning September 1, 1982. Applicants should have a Ph.D. (or be near completion). The successful candidate will teach graduate and undergraduate finance courses. The rank of the position is open and the salary is competitive. Preference will be given to citizens and legal residents of Canada. Applications should be sent to: Dr. Earl J. Robinson, Chairperson, Department of Finance and Management Science, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3. Tel: (902) 429-9780.

## MATHEMATICAL SCIENCES

**UNIVERSITY OF LETHBRIDGE. Department of Mathematical Sciencas. Computing Science.** One position with rank and salary commensurate with qualifications and experience. Ph.D., or near completion. Applicant must have a commitment to teaching at the undergraduate level and to research, and will be expected to play a major role in the development of the computing science programme. Base salaries: Assistant Professor — $24,204; Associate Professor — $30,993; Full Professor — $40,201. Applications including a curriculum vitae, transcripts and three letters of reference should be sent to: The Chairman, Department of Mathematical Sciences, University of Lethbridge, 4401 University Drive, Lethbridge, Alberta, T1K 3M4. Tenure track position. Probationary appointment beginning 1 July 1982. Closing Date: When position is filled.

## MEDICINE

**UNIVERSITY OF SASKATCHEWAN. Department of Geriatric Medicine.** Applications are invited from physicians with higher qualifications in internal medicine and training in Geriatric Medicine, for a position as Assistant Professor in Geriatric Medicine. Internists or trainees in internal medicine interested in obtaining training in Geriatric Medicine with a view to a faculty position are also invited to contact Dr. Duncan Robertson, Head Geriatric Medicine, Box 85, University Hospital, Saskatoon, Saskatchewan, S7N 0W0.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Medicine. University Title: Lecturer. Hospital Department: Medicine (Cardiology). Hospital Title: Assistant Physician, Associate Director. Qualifications required: M.D., FRCP(C) (Cardiology) or be qualified to take these exams. Nature of Duties: (a) to help run the Coronary I.C.U. in terms of patient care, teaching, and clinical research, (b) carry out invasive procedures in setting of Coronary I.C.U. and hemodynamic laboratory, (c) develop a clinical cardiology practice. Salary: Commensurate with qualifications and experience. Person to whom enquiries should be sent: Dr. E.D. Wigle, Director, Division of Cardiology, Eaton Building, N, 12-217B, Toronto General Hospital, 101 College Street, Toronto, Ontario. M5G 1L7. Effective Date of Appointment: July 1, 1982. Type of Appointment: Clinical Appointment — annual. Closing Date for Receipt of Applications: September 30, 1981.

**UNIVERSITY OF ALBERTA. Endocrinologist.** Canadian fellowship eligible. Internal Medicine research interests in lipid or carbohydrate disorders. Full-time position with teaching and practice components. Contact: Dr. Peter M. Crockford, Director, Division of Endocrinology and Metabolism, Faculty of Medicine, University of Alberta, Edmonton, Alberta, Canada. T6G 2G3.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Medical Genetics. University Title: Assistant Professor. Qualifications Required: M.D.'s or Ph.D's with post-doctoral training and strong background in molecular genetics of eukaryotes or the application of molecular genetics to medical or related problems. Nature of Duties: Appointee is expected to lead research programme in area of expertise and participate in the teaching of molecular and cell biology. Salary: Commensurate with qualifications and experience. Person to whom enquiries should be sent: Dr. Andrew Becker, Department of Medical Genetics, University of Toronto, Toronto, Ontario, M5S 1A8. Effective Date of Appointment: April 1, 1982. Type of Appointment: Tenure/Tenure Stream. Closing Date for Receipt of Applications: October 31, 1981.

**UNIVERSITY OF ALBERTA. Faculty of Medicine.** Faculty Position in Medical Microbiology. The Department of Medical Bacteriology, Faculty of Medicine, University of Alberta, invites applications for a full-time, tenure-track faculty position. Interested individuals should have demonstrated research excellence in one of the specialty areas of medical microbiology and must be prepared to develop and maintain a major research program. The successful candidate will be expected to contribute to graduate and medical teaching, including the direction of graduate students. An opportunity exists to obtain substantial establishment funds from the Alberta Heritage Foundation for Medical Research. Salary and academic rank are dependent upon experience and qualifications. Please send letters of application, including a recent curriculum vitae, statement of research interests and the names of three referees, to: Dr. F.L. Jackson, Chairman, Department of Medical Bacteriology, Faculty of Medicine, University of Alberta, Canada, T6G 2H7.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Anatomy (Div. of Histology). University Title: Assistant Professor. Qualifications required: Investigator/teacher with the degree of M.D. and/or Ph.D. and with an outstanding research program, especially in the area of regulation of hemopoietic cell differentiation and proliferation (normal or malignant) at the cellular and/or moleculer level. Nature of Duties: The candidate will be expected to carry on independent research, participate in graduate teaching, and supervise graduate students. Salary: Applicant is expected to obtain his/her own salary through major external granting agency. Person to Whom enquiries should be sent: Dr. A.A. Axelrad, Professor and Head, Div. of Histology, Department of Anatomy, Faculty of Medicine, University of Toronto, Toronto, Ontario. M5S 1A8. Effective Date of Appointment: August 1, 1981. Type of Appointment: Appointment — annual. Closing Date for Receipt of Applications: Applications will be considered until the position is filled.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department. Anatomy. University Title: Tutor. Qualifications Required: M.D. or D.D.S. with at least 3 years experience in lecturing and demonstrating Gross Anatomy and Neuroanatomy to medical, dental, and rehabilitation medicine students. Fluency in English essential. Nature of Duties: Lecture in Gross Anatomy to dental students and demonstrate Gross Anatomy and Neuroanatomy to dental, medical, and rehabilitation medicine students. Salary: Commensurate with qualifications and experience. Person to Whom enquiries should be sent: Dr. Keith L. Moore, Chairman, Department of Anatomy, Medical Sciences Building, University of Toronto, Toronto, Ontario, M5S 1A8. Effective Date of Appointment: August 1, 1981. Type of Appointment: annual. Closing Date for Receipt of Applications: September 30, 1981.

**QUEEN'S UNIVERSITY. Department of Medicine. Respirologist.** Geographic full-time position. Applicant to have a major research commitment in respiratory medicine and be eligible for an Ontario Thoracic Society Research Scholarship in Respiratory Diseases. Some clinical practice required in intensive care, inpatient and outpatient medicine, as well as diagnostic pulmonary procedures. Teaching of medical students, housestaff and specialty trainees in respirology required. Interested candidates please apply with curriculum vitae and names and addresses of three referees to: Dr. D.L. Wilson, Professor and Head, Department of Medicine, Queen's University, Kingston, Ontario, K7L 3N6.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Preventive Medicine and Biostatistics. University Title: Professor and Director, Liver Epidemiology and Biostatistics Unit. Qualifications required: M.D. Training as a hepatologist is preferred. Nature of Duties: Leadership and administration of a unit devoted to research intended to reduce the incidence of liver disease and/or improve diagnosis of treatment. Salary: Commensurate with qualifications and experience. Person to Whom enquiries should be sent: Dr. M.J. Ashley, Chairman, Search Committee, Liver Epidemiology and Biostatistics Unit, Department of Preventive Medicine and Biostatistics, University of Toronto, Toronto, M5S 1A8. Type of Appointment: Appointment — annual. Closing Date for Receipt of Applications: September 30, 1981.

**QUEEN'S UNIVERSITY. Faculty of Medicine. School of Rehabilitation Therapy.** Applications are invited from Canadian Citizens or Landed Immigrants for two tenure stream positions in the Division of Occupational Therapy which become available on 1 July, 1982. In each case the successful applicant will be an occupational therapist who holds a graduate degree in occupational therapy or related field, and who is eligible for membership in C.A.O.T. One position requires recent experience in the treatment of adults with physical disabilities, and the second in paediatric rehabilitation. Each appointee will be responsible for teaching and establishing a research program in their area of expertise, in addition to performing other duties as assigned by the Head of the Division. Salary and rank will be commensurate with qualifications and experience. Candidates of both sexes are equally encouraged to apply. Applications, together with a curriculum vitae and the names of three referees should be submitted before 31 December 1981 to: Mr. B. Pickles, Director, School of Rehabilitation Therapy, Faculty of Medicine, Queen's University, Kingston, Ontario K7L 3N6. Telephone (813) 547-3232.

**McGILL UNIVERSITY. Department of Obstetrics and Gynecology.** Research Assistant. Individuals with a Ph.D. or equivalent and with training in male reproductive biology and sterold enzymology are invited to apply. Salary $16,500. Send curriculum vitae and three letters of recommendation no later than September 30, 1981 to Dr. B. Robaire, Department of Obstetrics and Gynecology, Royal Victoria Hospital, 687 Pine Avenue West, Montreal, Quebec, H3A 1A1, Canada.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Physiology. University Title: Assistant Professor. Qualifications Required: Ph.D. or equivalent, in physiology or biology, with training in the area of membrane biophysics (including membrane channels, receptors, or transport mechanisms) or related aspects of membrane function or cellular neurobiology. Nature of Duties: The applicant will be required to mount a programme of research; to undertake training of graduate students; and to participate in teaching of medical students and advanced undergraduate students in physiology. Salary: Commensurate with experience and qualifications. Person to Whom Enquiries Should be Sent: Professor H.L. Atwood, Chairman, Department of Physiology, Faculty of Medicine, Medical Sciences Building, University of Toronto, Toronto, Ontario, M5S 1A8, Canada. (Applicants should send curriculum vitae and three letters of recommendation, or names of three referees). Effective Date of Appointment: July 1, 1982. Type of Appointment: Tenure/Tenure Stream. Closing Date for Receipt of Applications: October 31, 1981.

**THE ONTARIO CANCER FOUNDATION. KINGSTON CLINIC. QUEEN'S UNIVERSITY. Medical Oncologist.** Full-time, new faculty position. The Ontario Cancer Foundation, Kingston Clinic, and Queen's University require an experienced solid tumour oncologist. The appointee must be eligible for an Ontario practice licence, should have or obtain the FRCP(C) in Internal Medicine, and will be expected to maintain a research programme. The OCTRF salary scale and benefits will apply. Applications with C.V. and enquiries to: Director, OCTRF Kingston Clinic, King Street West, Kingston, Ontario, K7L 2V7 (Telephone 613-544-2630). During Canadian mail stoppage, write c/o Department Radiation Oncology, Queen's University, General Delivery, Watertown, N.Y., 13601.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Preventive Medicine and Bio Statistics. University Title: Professor or Associate Professor of Bio Statistics. Qualifications Required: Ph.D. in Bio Statistics; several years experience in teaching and original research including the supervision of M.Sc. and Ph.D. students and Bio Statistics; interest in statistical theory and methodology and in applied aspects of Bio Statistics as well as in the analysis of epidemiologic data. Preference will be given to qualified individuals who could direct M.Sc. and Ph.D. Bio Statistics training programme. Nature of Duties: Teaching and research, major role in development of Bio Statistic Programme. Salary: Commensurate with experience. Person to Whom Inquiries Should be Sent: Doctor M.J. Ashley, Chairman, Search Com-

mittee, Department of Preventive Medicine and Bio Statistics, Faculty of Medicine, University of Toronto, Toronto, Ontario, M5S 1A8. Effective Date of Appointment: Immediate. Type of Appointment: Tenure or Tenure Stream. Closing Date for Receipt of Applications: October 31, 1981.

**UNIVERSITY OF TORONTO. Faculty of Medicine.** University Department: Paediatrics. University Title: Professor. Qualifications Required: 1. Certification in the field of paediatrics. 2. Expert paediatric clinician. 3. Expert teacher and administrator. Nature of Duties: Overall direction of the undergraduate, post graduate, and continuing education in the Department of Paediatrics. Salary: Commensurate with qualifications and experience. Person to Whom Enquiries Should be Sent: Dr. D.H. Carver, Professor and Chairman, Department of Paediatrics, Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, M5G 1X8. Effective Date of Appointment: To be negotiated. Type of Appointment: Clinical appointment. Closing Date for Receipt of Applications: October 30, 1981.

## MICROBIOLOGY

**UNIVERSITY OF SASKATCHEWAN. Department of Microbiology. Cell Biologist.** Applications are invited for a position at the level of assistant professor/associate professor in either the Department of Microbiology or the Department of Biochemistry to be sponsored by a National Cancer Institute of Canada development program for cancer research at the University of Saskatchewan. The program provides for salary support for up to 5 years and funds for research and equipment. The appointee would be expected to work in collaboration with a multidisciplinary team whose research areas include tumor metastasis, membrane biochemistry, chemotherapy and tumor immunology. A Ph.D. with at least 2-3 years postdoctoral training is required. Applicants should send curriculum vitae, research interests, reprints and names of three references to Dr. I. Ramshaw, Department of Microbiology, University of Saskatchewan, Saskatoon, Saskatchewan, S7N 0W0, Canada.

## MINING

**LAVAL UNIVERSITY. Department of Mining and Metallurgy.** The Department invites applications for positions as research associates, post-doctoral research fellows. The research areas in which openings exist or are expected to occur are: Corrosion, protection of metals, and electrometallurgy. Candidates should possess a post-graduate degree or relevant industrial research experience. Salary level will be consistent with qualifications and experience and will be in the range $17,000 to $22,000 per year. Grants for two Ph.D. students in metallurgy are also available. The value of the grant is $12,000 (Canadian) a year. Please send résumé, including the names of three referees to: E. Ghali, professeur, Département de mines et métallurgie, Université Laval, Québec, Québec, G1K 7P4.

## MUSIC

**McGILL UNIVERSITY. Faculty of Music. Department of School Music.** Assistant Professor. Ph.D. or equivalent; experience in orchestral school music teaching; scholarly publications. Graduate research supervision; teaching graduate school music courses; undergraduate orchestral conducting and instrumental techniques courses. 1981-82 rank minimum — $26,170. Send curriculum vitae, three letters of reference and article reprints to: Dr. Estelle R. Jorgensen, Chairman, Department of School Music, Faculty of Music, McGill University, 555 Sherbrooke St. West, Montreal, Quebec H3A 1E3. September 1, 1982 — effective date of appointment. When position is filled — closing date for receipt of applications.

**THE UNIVERSITY OF LETHBRIDGE. Department of Music.** One position at the Assistant Professor level in Voice. Duties to include studio voice instruction, madrigal singers, possibly choir or opera workshop. Ancillary teaching in music literature. Performance as solo and chamber recitalist. Master's degree. Doctoral studies an advantage. Significant experience as a teacher of voice in an undergraduate university context. Active performance profile. Broad knowledge of vocal literature and styles. Salary schedule (1981-82): Assistant Professor $24,204., Minimum. Applications including a curriculum vitae, transcripts, and three letters of reference should be sent to: Dr. John Jackson, Chairman, Department of Music, The University of Lethbridge, 4401 University Drive, Lethbridge, Alberta, T1K 3M4. Tenure track position. Probationary appointment for one year beginning 1 July, 1982. Closing date: When position is filled.

## NUCLEAR CHEMISTRY

**QUEEN'S UNIVERSITY. Research Associate in Nuclear Chemistry.** Position available immediately. Radiochemist, Ph.D., having training in organic synthesis, for research and development in radiopharmaceuticals. Initial salary at the current Medical Research Council rate for beginning professional scientists. Submit inquiries and curriculum vitae to: Professor W.A. Szarek, Director, Carbohydrate Research Institute, Queen's University, Kingston, Ontario K7L 3N6, Canada.

## NURSING

**UNIVERSITE LAVAL. Ecole des Sciences infirmières.** Professeur de Carrière. Fonctions: Dispenser de l'enseignement en soins infirmiers au 1er cycle. Participer à l'implantation et au développement d'études de 2e cycle et superviser des théses. Planifier et implanter des projets de recherche clinique en soins infirmiers. Participer aux autres activités internes et externes de l'Ecole. Qualifications: Etre titulaire d'un Ph.D., ou l'équivalent. Expérience d'enseignement et de pratique des soins infirmiers. Expérience en recherche et publications. N.B. La formation de 2e ou de 3e cycle doit être en Science infirmières. Conditions: Rang et rémunération selon les qualifications et l'expérience. Connaissance du français parlé et écrit. Soumettre la demande avec la date de disponibilité, un curriculum vitae à jour, une liste des publications et le nom de trois personnes pour référence à: Thérèse Fortier, directrice, Ecole des sciences infirmières, Pavillon Comtois, Université Laval, Cité Universitaire, Québec, Québec, Canada, G1K 7P4. Poste ouvert jusqu'au recrutement d'une personne répondant aux besoins.

**UNIVERSITY OF ALBERTA. Faculty of Nursing.** Faculty Positions Available 1 January 1982. Applications are invited for teaching positions in the undergraduate programme for a Faculty member with mental health/psychiatric preparation. The undergraduate programme utilizes Orem's framework providing an integrated approach to nursing of clients and their families. Faculty members are expected to participate in research, publishing and continuing education articles in addition to their teaching assignment. Qualifications: A Ph.D. is preferred but a Master of Nursing degree with demonstrated clinical practice is acceptable. Joint appointments with service agencies are possible for suitably qualified applicants. Salary: According to rank, experience and the terms of the Academic Staff Association Agreement. Apply to: Dr. P.A. Field, Acting Dean, Faculty of Nursing, 3-118 Clinical Sciences Building, University of Alberta, Edmonton, Alberta T6G 3G4. When applying, please send curriculum vitae and names of three referees.

## NUTRITION

**UNIVERSITY OF GUELPH. Department of Nutrition.** Applications are invited for a faculty position in nutrition (rank and salary negotiable, subject to qualifications and experience). An individual is sought who has strong training in the experimental and biochemical aspects of nutrition and interest in the application of this training to problems in human nutrition. The position involves teaching of the comparative and metabolic aspects of nutrition at the undergraduate and graduate levels and development of an active research program in biochemical nutrition or toxicology. Curriculum vitae and names of three referees should be sent to Dr. B.L. Walker, Chairman, Search Committee, Department of Nutrition, University of Guelph, Guelph, Ontario, N1G 2W1, Canada. Closing date September 30, 1981 or when position filled. Subject to final budgetary approval.

## PHARMACOLOGY

**UNIVERSITY OF GUELPH. Department of Biomedical Science.** Pharmacology Research Assistant or Post-Doctoral Fellow in pulmonary smooth muscle pharmacology (autonomics, inflammatory mediators, etc.) Familiarity with immunology and/or histology is an advantage. Possible 2 year appointment commencing October-November 1981. Salary dependent on qualifications. Enquiries to Dr. P. Eyre, Chairman, Department of Biomedical Science, University of Guelph, Guelph, Ontario, N1BG University of Guelph, Guelph, Ontario, N1G 2W1.

**toon, Saskatchewan, Canade. Faculty position in Clinical Pharmecology.** Appointment in Departments of Pharmacology and Medicine. Candidate should have M.D., post-graduate training in internal medicine and pharmacology, and eligibility for licensure in Province of Saskatchewan. Send curriculum vitae to Dr. G.E. Johnson, Head, Department of Medicine, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, S7N 0W0. Consideration will be given only to applicants who are Canadian citizens or landed immigrants.

## PHYSICAL & HEALTH EDUCATION

**UNIVERSITY OF TORONTO. School of Physical and Health Educetion.** Tutor stream (annually renewable) appointment as co-ordinator of continuing education. Ph.D. or M.Sc. in Physical and Health Education or related discipline. Experience in continuing education an advantage. An individual with enterprise and administrative abilities is sought to develop a continuing education programme with a strong academic emphasis and an ability to become self-sustaining. Salary commensurate with qualifications and experience. Applications to Dr. Roy J. Shephard, Director, School of Physical and Health Education, 320 Huron St., University of Toronto, Toronto, Ontario. M5S 1A1.

## PHYSICS

**UNIVERSITY OF VICTORIA. Physics Department and TRIUMF, British Columbia, Canada. R.M. Pearce Professorship.** Applications are invited for a newly created position in Experimental Intermediate Energy Physics supported jointly by the University of Victoria and TRIUMF in memory of the late Dr. R.M. Pearce, formerly Chairman of the Physics Department at the University of Victoria and Associate Director of TRIUMF. We are seeking a physicist with an outstanding record of achievement in Experimental Intermediate Energy Physics who will actively develop new projects using the facility at TRIUMF. The successful candidate, who will be eligible for tenure in one of the senior professorial ranks at the University of Victoria, will have some teaching responsibilities in the Physics Department and will be expected to supervise the research of graduate students. Salary and rank on appointment are negotiable. Letters of application including a curriculum vitae, publication list and the names and addresses of three referees, should be sent as soon as possible to: Dr. J.T. Weaver, Chairman, Physics Department, University of Victoria, P.O. Box 1700, Victoria, British Columbia, Canada. V8W 2Y2.

**UNIVERSITY OF VICTORIA. Department of Physics. Astronomy Position.** The Department of Physics at the University of Victoria invites applications for a tenure-track position in Astronomy commencing July 1st, 1982. It is anticipated that the appointment will be made at the rank of Assistant Professor, and that preference will be given to an observational astronomer with a strong background in astrophysics. Aoplicants must have completed a Ph.D. or its equivalent and may possibly have one or two years post-doctoral experience as well. The successful candidate will have shown exceptional promise as a researcher with the ability to initiate and develop new ideas, and will be expected to supervise graduate students in addition to teaching effectively at both the undergraduate and graduate levels. The Department maintains close contact with the nearby Dominion Astrophysical Observatory and opportunities also exist for observing time on the 3.6 m Canada-France-Hawaii telescope in Hawaii. Letters of application including a curriculum vitae, publication list and the names and addresses of three referees, should be sent to J.T. Weaver, Chairman, Department of Physics, University of Victoria, P.O. Box 1700, Victoria, British Columbia, Canada, V8W 2Y2. Closing date for applications is January 15, 1982.

**UNIVERSITY OF WATERLOO. Department of Physics.** Applications are being accepted for the position of Postdoctoral Fellow or Visiting Research Professor to join in the investigation of CDW and intercalation structure in 1-D and 2-D crystals. Experience in HREM, HEED, CBED, or XRD is desirable. Appointment for one year with possible renewal for a second year by mutual agreement. Salary in the range $16,000 to $20,000 p.a. depending on qualifications. Open until position is filled. Send applications, with the names of three references to Professor F.W. Boswell or J.M. Corbett, Department of Physics, University of Waterloo, Ontario, N2L 3G1. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

**UNIVERSITY OF WATERLOO. Department of Physics.** Applications are being accepted for a two year definite term appointment beginning September 1, 1981 or January 1, 1982. The appointment will be at the assistant professor level. Applicants should have a strong commitment to both teaching and research. Post-doctoral experience is highly desirable. Preference will be given to applicants with active research interests including at least one of the following areas: Automated photographic plate processing; Binary stars; Open and Globular Clusters; Galactic Structure; the Interstellar medium; Photometry; Stellar structure and evolution; Stellar (MK and velocity) spectroscopy. However, the areas of candidates' current research should be related to other topics as well. Observational and theoretical astrophysicists will be considered. Preference will be given to candidates who have the right to hold employment in Canada. Salary $21,850 (minimum). Application deadline: When position is filled. Apply to Professor N.R. Isenor, Chairman, Department of Physics, University of Waterloo, Waterloo, Ontario, Canada, N2L 3G1.

## PHYSIOLOGY

**UNIVERSITY OF SASKATCHEWAN. Department of Physiology.** Applications are invited for appointment at the Assistant Professor level. The appointment will be tenurable. Applicants must have an M.D., D.D.S., D.V.M., or Ph.D. degree with at least two years of postdoctoral experience. Experience in one of the following areas is preferred: (1) cell physiology and biophysics (2) endocrinology (3) renal physiology and body fluids (4) neurophysiology. Responsibilities include teaching undergraduate and graduate students and the establishment of an independent research program. The salary will be dependent on qualifications and experience. The floor of the present salary range is $21,120. (1980-81). Send applications (including complete curriculum vitae and the names of three referees) to Dr. J.W. Phillis, Head, Department of Physiology, College of Medicine, University of Saskatchewan, Saskatoon, Canada, S7N 0W0.

## PLANT SCIENCE

**UNIVERSITY OF ALBERTA. Department of Plant Science. Plant Pathology.** Applications are invited for a faculty position at the Assistant Professor level in the Department of Plant Science, University of Alberta. Qualifications should include a Ph.D. degree and relevant experience. The position includes teaching courses at undergraduate and graduate levels, and research and extension in plant pathology. Undergraduate teaching involves sharing courses in principles of plant pathology and [illegible] of field and horticultural crops, and teaching an introductory course in forest pathology. Salary will be commensurate with qualifications and experience. Applications, with curriculum vitae and names of three referees, should be sent to Dr. W.P. Skoropad, Chairman, Department of Plant Science, University of Alberta, Ed-

monton, Alberta, Canada, T6G 2P5. The expected date of appointment is January 1, 1982. The closing date for applications is November 15, 1981. The University of Alberta is an equal opportunity employer.

## PSYCHOLOGY

**UNIVERSITY OF BRITISH COLUMBIA. Department of Psychology.** The Department is now inviting applications for two senior level, tenured positions in Clinical Psychology. One appointment will be as Director of the graduate programme. Candidates for this position must have extensive relevant experience in the organization and development of a graduate programme in clinical psychology, including liaison with external agencies. Applicants for both positions must have demonstrated competence in teaching and clinical supervision. In addition, there must be a substantial record of research productivity encompassing applied or basic research in areas relevant to clinical psychology. Candidates whose interests overlap with other areas of the Department, including specialists in behavioural medicine, clinical child and psychophysiology, are encouraged to apply. The University of British Columbia will also have up to three tenure track openings in social psychology and personality. Rank is open, but it is likely that two of these appointments will be at the assistant professor level. Teaching excellence and commitment to and demonstrated talent for research are required. Salaries are negotiable and competitive. The positions are subject to budgetary considerations. The University of British Columbia offers equal opportunity for employment to qualified male and female candidates. Complete curriculum vitae and names of at least three referees should be forwarded to: Chairman, Faculty Search Committee, Department of Psychology, University of British Columbia, Vancouver, B.C., Canada V6T 1W5.

**CONCORDIA UNIVERSITY. Department of Psychology. Centre for Applied Research in Human Development.** Research Coordinator. N.B. This is a part-time temporary position until May 30, 1982 (with possibility of renewal for up to 3 years), Monday — Friday: 3 to 4 hours per day. Duties: As Assistant to the Centre Director, candidate will be involved in the administrative coordination of the Research Centre including grant administration and accounting, coordination of research and laboratory facilities and activities, liaison with community facilities and centre faculty, the responsibility for equipment and will also assist in the preparation of grants and research reports. Required: Minimum of an M.A. in Psychology, research experience, experience in grant preparation/administration, experience in research with human subjects, knowledge of psychology testing procedures, experience working in applied settings and experience with video recordings and/or micro (laboratory) computers. Interested candidates are invited to submit résumés in writing or to contact: Doreen Hutton, Department of Human Resources, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, H3G 1M8.

**UNIVERSITY OF MANITOBA. Department of Psychology.** Applications are invited for a probationary (tenure stream) appointment at the assistant or possibly associate professor level in the area of quantitative methods. Candidates should be qualified to teach graduate courses in multivariate and univariate statistical techniques, supervise graduate students in the quantitative area and provide consultative service to staff and students. While preference will be given to applicants with research interests directly in multivariate quantitative methods, applications from candidates with strong secondary interest in this area will also be considered. The University encourages both women and men to apply for this position and especially invites applications from Canadian citizens, permanent residents, and others eligible for employment in Canada at the time of application. Interested candidates should send their curriculum vitae to Dr. J.S. McIntyre, Head, Department of Psychology, University of Manitoba, Winnipeg, Manitoba, R3T 2N2. The appointment begins July 1, 1982. Application deadline is December 1, 1981.

## SCIENCE

**YORK UNIVERSITY. Science Department.** Research Associate in Long Baseline Interferometry. Applications are invited for the position of Research Associates working with a group of researchers in the field of geophysical applications of Long Baseline Interferometry. Applicants must be familiar with the technique of Long Baseline Interferometry and have had experience with the reduction and analysis of Long Baseline Interferometry data for Geodesy and Astrometry. The salary offered is $1,300 per month depending on experience. Commencing immediately applications should be sent to Professor W.H. Cannon, Room 12, Petrie Science Building, York University, 4700 Keele Street, Toronto, Ontario M3J 1P3.

## SYSTEMS DESIGN

**UNIVERSITY OF WATERLOO. Systems Design Engineering.** Applications are being accepted for the position of Assistant Professor. Tenure-track position, initial appointment for three years. Candidates should have a technical background and research interests in one or more of the following areas: Pattern recognition, information systems, image processing, machine intelligence, signal processing, optimization, and applications of microcomputers. Ph.D. in an appropriate area is required. Duties include undergraduate and graduate teaching and supervision of students as well as developing a strong research programme. Salary will be commensurate with experience and qualifications. Effective date of appointment is September 1, 1981 or as soon as possible thereafter. No closing date for receipt of applications which, together with c.v. and the names of three referees, should be sent to Dr. K. Huseyin, Chairman, Department of Systems Design, University of Waterloo, Faculty of Engineering, Waterloo, Ontario, N2L 3G1. First consideration will be given to those applicants who at the time of application are legally eligible to work in Canada for the period covered by this position.

## THEATRE

**CONCORDIA UNIVERSITY. Theatre Department. Theatre — Studio Technicien.** Duties: To assist the Technical Director in all operations associated with the preparations and running of Theatre Department productions such as; training of student technical crews in the proper use of theatre equipment, techniques and procedures; maintaining theatre plant(s) and equipment; assisting the scenography faculty with student labs and projects; establishing and ensuring the maintenance of a high standard of operation. Qualifications: Professional DEC in Theatre Arts plus two years relevant experience or the equivalent in education and/or experience; training and experience in theatre graphics, carpentry, property construction, scenic painting, stage lighting, and scene shop operation and maintenance; working knowledge of metals, plastics and electronic technology; knowledge of materials purchasing and control; working knowledge of French. Interested candidates are invited to submit applications in writing or to contact the employment officers listed below: Elaine Comartin, Sir George Williams Campus, 879-8116. Helen Raspin, Sir George Williams Campus, 879-4521.

**YORK UNIVERSITY.** Theatre. Designer-Scenographer for Theatre Department, York University, with probationary tenure status, at the associate professor level, for September 15, 1981 preferred. The Faculty of Fine Arts has departments of theatre, dance, film, music, and visual arts, and offers undergraduate and graduate degree programs. The Theatre Department structures its programs through three areas: performance, production, and theatre studies. Candidates for the above position should demonstrate (i) ability to teach design/scenography and be responsible for that area, (ii) notable university or professional school teaching experience, (iii) knowledge and involvement with contemporary developments in scenography internationally (including holography and laser beam technology), (iv) experience and viable contacts with pedagogical and professional theatre and opera, and (v) interest in interdisciplinary studies. Send application with c.v., and referees, to: The Dean (Theatre Search), Faculty of Fine Arts, York University, Downsview (Tor.) Ontario M3J 1P3.

## UKRAINIAN STUDIES

**YORK UNIVERSITY. Faculty of Arts.** Ukrainian Studies/History/Political Science. The Faculty of Arts of York University has an opening for three years (July 1982 - June 1985) for a specialist in Ukrainian history and/or politics. Final budgetary approval for the position is pending. Position: Assistant or Associate Professor, Department of History and/or Political Science. Duties: Undergraduate teaching in any of the following areas: History of the Ukraine; Eastern and General European History in the 20th Century; Canadian Ethnic History; Soviet Politics; Eastern European Politics; Slavic Society and Culture. Qualifications: Ph.D. (or equivalent) with research experience in Ukrainian history and/or politics. Apolications: Curriculum vitae with names of three referees to: Professor H.M. Stevenson, Chairman, Department of Political Science, York University, 4700 Keele Street, Downsview, Ontario, Canada, M3J 1P3. Deadline: December 15, 1981.

## VETERINARY MEDICINE

**UNIVERSITY OF GUELPH. ONTARIO VETERINARY COLLEGE. Department of Clinical Studies.** Assistant/Associate Professor — Ophthalmology. A faculty position in the area of Ophthalmology is available in the Department of Clinical Studies, Ontario Veterinary College, University of Guelph. The main duties of the applicant will be to teach Ophthalmology at the undergraduate and graduate level and to participate as a clinician in the Veterinary Teaching Hospital. The applicant must be eligible for licensure in the Province of Ontario. An advanced degree, Board Cerlification or eligibility for Board Certification and teaching experience is required. Salary and rank will be commensurate with experience and qualifications. Selection of the successful applicant will be made on recommendation of a selection committee. The position is subject to budgetary approval. Enquiries regarding the position can be made to: Dr. M.R. Wilson, Chairman, Department of Clinical Studies, Ontario Veterinary College, University of Guelph, Guelph, Ont. N1G 2W1.

**UNIVERSITY OF GUELPH. DNTARID VETERINARY COLLEGE.** A position in the ambulatory clinic is available in the Department of Clinical Studies, Ontario Veterinary College, University of Guelph as of October 1, 1981. The successful applicant will be employed as an Assistant Professor on a contractually limited basis for a one year term. Competence in general medicine of all species of Large Animals will be required. The main duty of the applicant will be to teach at the undergraduate level in the Ambulatory Clinic. The applicant must be licensed to practice veterinary medicine in Ontario. Salary will be commensurate with training and experience. Qualified applicants are invited to submit a curriculum vitae plus three reference letters to Dr. M. Wilson, Chairman, Department of Clinical Studies, University of Guelph, Guelph, Ontario, Canada, N1G 2W1. The application deadline is September 30, 1981 or until a suitable applicant is found. Position subject to final budgetary approval.

**UNIVERSITY OF GUELPH. DNTARIO VETERINARY COLLEGE.** Two positions in Large Animal Medicine are available in the Department of Clinical Studies, Ontario Veterinary College, University of Guelph, as of October 1, 1981. The successful applicants will be employed as Assistant Professors on a contractually limited basis for a one yeer term. Competence in general medicine of all species of Large Animals will be required. The main duties are to teach Large Animal Medicine at the Undergraduate and Graduate level and to participate as a Clinician in the Veterinary Teaching Hospital. The applicant must be licensed to practice veterinary medicine in Ontario. Salary will be commensurate with training and experience. Qualified applicants are invited to submit a curriculum vitae plus three letters of reference to Dr. M. Wilson, Chairman, Clinical Studies Department, University of Guelph, Guelph, Ontario, Canada, N1G 2W1. The application deadline is September 30, 1981 or until a suitable applicant is found. Positions subject to final budgetary approval.

**UNIVERSITY OF GUELPH. ONTARIO VETERINARY COLLEGE. Department of Clinical Studies.** A position in Large Animal Medicine is available in the Department of Clinical Studies, Ontario Veterinary College, University of Guelph as of October 1, 1981. Competence in general medicine of all species of Large Animals will be required of the successful applicant. The main duties of the applicant will be to teach Large Animal Medicine at the Undergraduate and Graduate level and to participate as a Clinician in the Veterinary Teaching Hospital. The applicant must be licensed or eligible for licensure in the Province of Ontario. Completion of an intern/residency program would be desirable. Academic rank and salary will be commensurate with experience and qualifications. Position is subject to budgetary approval. Enquiries regarding the position can be made to: Dr. M.R. Wilson, Chairman, Department of Clinical Studies, Ontario Veterinary College, University of Guelph, Guelph, Ontario N1G 2W1.

**UNIVERSITY OF GUELPH, DNTARID VETERINARY COLLEGE. Department of Clinical Studies.** The Department of Clinical Studies of the Ontario Veterinary College, University of Guelph requires a pharmacist, to be appointed at the Assistant Professorship level. The successful candidate will operate the University Pharmacy to provide drugs and other supplies for the Veterinary Teaching Hospital and University research programs. The pharmacist's duties will include instituting and administering procedures for proper drug control in the various university programs. He/she will be required to provide formal and informal teaching in the Veterinary Hospital for undergraduate students. Applicants must be eligible for licensing in Ontario. Salary is negotiable, depending on experience. Position subject to final budgetary approval. Enquiries concerning this position (available January 1, 1982) should be made to: Dr. M.R. Wilson, Chairman, Department of Clinical Studies, Ontario Veterinary College, University of Guelph, Guelph, Ontario, N1G 2W1

**UNIVERSITY OF SASKATCHEWAN. Western College of Veterinary Medicine. Department of Veterinary Anatomy.** Veterinary Anatomist. The Department of Veterinary Anatomy at the Western College of Veterinary Medicine will have a faculty position available immediately. Acceptable candidates should be qualified to teach gross and applied anatomy and must have demonstrated the ability to establish a research and graduate program in their area of interest. Possession of both D.V.M. and Ph.D. or equivalent degrees is desirable but applicants with either will be considered. Rank and salary are commensurate with qualifications. Canadian citizens and landed immigrants are invited to apply. Interested persons should send their curriculum vitae and names of at least three referees to: Dr. W.K. Latshaw, Department of Veterinary Anatomy, University of Saskatchewan, Saskatoon, Saskatchewan, Canada, S7N 0W0. Telephone (303) 343-3196.

**UNIVERSITY OF GUELPH. Ontario Veterinary College. Department of Clinical Studies.** The Department requires an Assistant Professor in the area of Large Animal Surgery as of October 1, 1981. The main duties of the applicant will be to teach surgery at the undergraduate and graduate level and to participate as a clinician in the Veterinary Teaching Hospital. The applicant must be eligible to be licensed to practice in the Province of Ontario. Advanced degree, teaching experience and Board certification or eligibility for Board certification would be desirable. Salary will be commensurate with experience and qualifications. Position is subject to budgetary approval. Enquiries regarding the position can be made to: Dr. M.R. Wilson, Chairman, Department of Clinical Studies, Ontario Veterinary College, University of Guelph, Guelph, Ontario, Canada, N1G 2W1.

**UNIVERSITY OF GUELPH. Department of Veterinary Microbiology and Immunology.** The Department is seeking applicants for a faculty position in the area of pathogenic bacteriology, to be available October 1, 1981. The duties include supervision of a small bacteriology diegnostic laboratory which serves the veterinary teaching hospital, assistance with teaching, mainly at the undergraduate level, and participation in some aspect of the Department's research program on economically important bacterial diseases. Applicants should have a D.V.M. degree and/or graduate training in veterinary bacteriology. The salary for this position, which is contractually limited to two years, is negotiable, and the position is subject to final budgetary approval. Enquiries and applications should be forwarded to Dr. J.B. Derbyshire, Chairman, Department of Veterinary Microbiology and Immunology, University of Guelph, Guelph, Ontario N1G 2W1.

# ECONOMIC BENEFITS. AVANTAGES ECONOMIQUES

## New CAUT group life insurance plan

**by Larry Eberlein**

The annual CAUT review of economic benefits provided at Canadian universities reveals that many academic staff are paying excessive amounts for group life insurance. It is also clear that many staff associations are not aware of the high cost of employer provided insurance purchased without staff consultation and without open bidding for the contract.

Decisions concerning life insurance are often made unilaterally and away from the bargaining table. However, each excess dollar paid for group life insurance could either provide higher coverage or become an addition to the staff member's salary. Life insurance is basically a taxable benefit and salary dollars are used to buy the coverage. Any association paying premiums of more than 20¢ per $1,000 per month should carefully review their plan.

Larger associations (over 500 members) have sufficient purchasing power to market their own internally designed plan. See, for example, "The value of a second option" on page 32 of the October 1980 *CAUT Bulletin*. In the situation described in the article, monthly premiums were reduced from 29¢ per $1,000 to 13¢ per $1,000. Even with increased coverage, enough money was saved to provide all academic staff with an employer paid provincial health care benefit. Previously, academic staff had paid half the cost of medicare.

The Economic Benefits Committee of CAUT, in conjunction with Prudential Life Insurance Company, is planning a new, special group life insurance program for small associations who are members of CAUT. This plan is different from and will not affect the operation of the individual life insurance plan also underwritten by Prudential.

The new plan is expected to substantially reduce costs to many associations by basing changes on two specific factors which, when added together, will provide the total cost:

1. The "pure insurance cost". This is the cost of insurance based on actuarially projected losses (expected claims). This factor depends upon the age, sex and mortality history of the group to be covered. By knowing the mix of the group to be covered, the exact monthly premium can be calculated.
2. The "retention cost". This is the cost of administering and operating the plan. This includes premium taxes payable, overhead charges, insurance pooling charges, and a profit for the insurance company. These will be detailed each year and added to the "pure insurance cost" to calculate the total premium payable. It is expected that this premium will be less than 20¢ per $1000 coverage per month for the average staff association.

Commissions (which can average up to 20 per cent of premiums) will not be paid since local administration of the plan will be the responsibility of each university. Contact with Prudential will be coordinated through the CAUT trustees responsible for the plan. With ten years of experience with CAUT, Prudential will be able to offer this plan with lower retention costs than for a first time contract.

Coverage will be offered in units of $25,000 to a maximum of $200,000 per staff member and will be indexed on a year to year basis. Where the entire staff is covered, no evidence of insurability will be required. For any part of the benefit that is optional (with less than 2/3 of the group covered) some evidence of insurability will be required, especially at the higher limits.

All persons presently insured will be guaranteed coverage to at least the same dollar amount as their present coverage. Terms will be flexible to include all within the unit (as, for example, when non-academic staff are included with faculty and librarians in the same plan). In addition, accidental death and dismemberment coverage will be offered as an option at very nominal rates. Family coverage will also be available.

More information about this small group plan will be sent to each association president this fall. However, group insurance plans are not developed in a vacuum. Ideas and desired changes generally come from individual members who see a personal need. Questions and observations are requested from all members of CAUT. If you have comments or desire additional information, please write us at the CAUT office in Ottawa.

*Professor Eberlein is with the Department of Educational Psychology at the University of Alberta and is a member of CAUT's Economic Benefits Committee.*


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